R. R.
Dysentery,
holera Morbus,
Inflammation
and Prevented by
s Ready Relief.
m, Neuralgia,
rin Influenza,
Throat, Asthma,
Difficult Breathing.
in a Few Minutes by
s Ready Relief
COMPLAINTS,
bes, Cholera Morbus, or pains
e bowels, are stopped in fifteen t
by taking Radway's Ready Relief
Inflammation, no weakness or la
the use of the R. R. Relief.
R. R.
DWAY'S
Y RELIEF
irst Pains in from One to
Twenty Minutes,
ONE HOUR.
this Advertisement need as
Suffer with Pain!
ADWAY'S
DY RELIEF
IS A
FOR EVERY PAIN,
s the FIRST and is the
LY PAIN REMEDY
stops the most excruciating pains
ms, and cures Congestion, whether
nach, bowels, or other glands o
application,
One to Twenty Minutes,
olent or excruciating the pain, the
ridden, infirm, crippled, nervous
trated with disease may suffer,
y's Ready Relief
ORD INSTANT EASE.
n of the Kidneys,
flammation of the Bladder,
n of the Bowels,
Congestion of the Lungs,
Difficult Breathing,
Palpitation of the Heart,
roup, Bronchitis,
Catarrh, Influenza,
Toothache,
Neuralgia, Rheumatism,
Ague Chills,
Chilblains, Frost Bites,
Sleeplessness,
m of the Ready Relief to the part ar
pain or difficulty exists will afford
y drops in half a tumbler of water
minutes' use will prevent any
burn, Sick Headache, Diarrhœa, Dy
rtind in the Bowels, and all internal
uld always carry a bottle of Rad
diet with them. A few drops in tha
ter on change of
ness from change
from French Brandy or Bitters a
alaria
N VARIOUS FORMS
AND AGUE.
AGUE cured for fifty cents. There
al agent in this world that will cure
e and other Malarious, Bilious,
ers, as RADWAY'S
PILLS) so rapidly as RADWAY'S
EF.
ENTS PER BOTTLE
LD BY DRUGGISTS.
RADWAY'S
SAPARILLIAN
SOLVENT.
akes sound flesh, strong bone, and
ure you would have your flesh firm,
d, without carbies, and your complexi
RADWAY'S SARSAPARILLIAN
the
Blood Purifier.
e and True.
om Dr. Radway's Treatise on "Di
se," as follows: List of diseases cured
AY'S
arillian Resolvent.
Diseases, Caries of the Bone, Humors
Scrofulous Diseases, Syphilitic Com
Sores, Chronic or Old Ulcers, Salt
ms, White Swelling, Scald Head,
ular Swellings, Nodes, Wasting and
ody, Pimples and Blotches, Tumors,
and Bladder Diseases, Chronic
and Gout, Consumption, Gravel, and
ntire, and varieties of the above com
ich sometimes are given specious
re the system has been salivated, and
cumulated and become deposited in
ts, etc., causing caries of the bones,
rvatures, contortions, white swel
ms, etc., the sarsaparilla will destroy
ison, exterminate the virus of the
e system.
Constitutional Remedy
s, Tumors, Ulcers and sores of all
rly Chronic Diseases of the Skin, are
certainly by a course of Dr. RAD
APARILLIAN. We mean obstinate
resisted all other treatments.
CROFULA,
mitted from parents or acquired
tive range of the
arillian Resolvent.
the same wonderful power in curing
ers, Sores of the Eyes, Inflammation
ts, Glands, etc., exterminating the virus of
ts of disease from the blood, bones,
every part of the human body where
Diseased Secretions, Ulcerations, Tumors,
or Scrofulous Inflammation, this great
remedy will exterminate rapidly and
ontains more of the active principles of
any other Preparation, taken in tea-
, while others require five or six times
r Per Bottle. Sold By Drug-
gists.
. RADWAY'S
ating Pills.
Liver and Stomach Remedy
steless, elegantly coated; purge, regu
lcanse, and strengthen. DR. RAD
S for the cure of all disorders of the
ld Stomach, Constipation,
of Appetite, Headache, Biliousness,
Indigestion, Dyspepsia, Biliousness,
ammation of the Bowels, Piles, and all
rangements of the Internal Viscera. Purely vege
ing no mercury, minerals, or deleterious
its per box. Sold by all druggists.
YSPEPSIA!
f maladies spring from this complaint,
ow its disease are the symptoms of a
stomach. Indigestion, Pain after
Stomach, Pain after Eating, giving
ld Stomach, Pain after Eating, giving
the most excruciating colic
ater Brash, etc., etc., etc.
's Pills are a cure for this complaint,
strength to the stomach, and quickly
unctions. The symptoms of dyspepsia
with them the liability of its long
iseases. Where the dyspepsia has
to become chronic, Dr. Radway's Re
esolvent should be taken in addition to
take the medicines according to the direc
ere we say in "False and True"
et and a good digestion, a healthy appe
ore perfect assimilation of food, will re
ore powers and give strength, vigor and
the most dejected.
"False and True."
ter stamp to Dr. RADWAY & CO., No
treet, New York.
ation with thousands will be sent to
TO THE PUBLIC.
e and ask for Radway's, and see that the
way" is on what you buy. never buy

MASSACHUSETTS PLOUGHMAN
AND NEW ENGLAND JOURNAL OF AGRICULTURE.

DEVOTED TO AGRICULTURE, HORTICULTURE, THE FARM AND THE GARDEN. THE FIRESIDE, RURAL LIFE, LITERATURE, USEFUL ARTS, NEWS, &c.

VOLUME XLV:::NO. 3. BOSTON, SATURDAY, OCTOBER 17, 1885. WHOLE NUMBER 2279.

MASSACHUSETTS PLOUGHMAN AND NEW ENGLAND JOURNAL OF AGRICULTURE.

Official Organ of the N. E. Agricultural Society.

ISSUED WEEKLY AT "PLOUGHMAN BUILDING."
No. 45 Milk Street (cor. Devonshire St.)
(Opposite the New Post Office.)

BOSTON.

GEO. NOYES, Ploughman Company, PROPRIETORS.

TERMS—$2.50 per annum in advance. $3.00 if not paid in advance. Postage Free. Single copies FIVE CENTS.

☞ No paper discontinued except at the option of Publishers, until all arrearages are paid.

☞ The Post Office law offers great advantages to Subscribers. Its circulation is large and among the most active and intelligent portion of the community.

TERMS OF ADVERTISING—One square of eight lines, first insertion, $1.00; each subsequent insertion, 40 cents.

Editorial.

OUR FORESTS.

The recent meeting of the Forestry Congress has very naturally raised the question as to what we can do practically to protect and increase our forests. While laws may be made to, in some measure, protect us from forest fires, it would be contrary to the American idea of government to enact any law that would interfere with the rights of any individual as to what disposition he shall make of the trees growing on his own land. States and towns may take and hold forest lands for public good, and make very stringent laws to protect them, and the people will very willingly agree to it, but the moment an attempt should be made to enact any law to dictate to individuals what trees they shall grow, or what they shall or shall not cut, there would arise such a spirit of opposition that it would crush out the attempt long before the advocates had enlisted a respectable minority.

But it is well understood that the friends of forestry do not advocate or desire the enactment of any law that will in the least infringe upon individual rights, but, on the contrary, they are opposed to any movement for the passage of the laws which will in any degree prevent individuals from cutting forest or other trees on their own land whenever they desire to do so.

The laws that are sought for are those which will protect our forests from fires, caused by carelessness or otherways, and also laws that will encourage the increase of forests by bounties, and reduction or extention of taxes. When we consider the fact that our forests are reduced about as much by fire as by the axe, we shall better realize the importance of enacting stringent laws to prevent, so far as possible, forest fires. When laws shall be made that will afford reasonable protection from fires, men of wealth will have much more courage to cover the waste land in many of the States with trees, especially if a little encouragement be given by the way of reducing, for ten or twenty years, the municipal taxes.

Probably the most valuable aid which organized effort can give is in the direction of instruction as to the character of the land that should be devoted to forests; the kinds of trees best adapted to the different soils, the quality and value for timber of different kinds of trees; the best methods of covering the land with trees, and the cheapest and best methods of caring for a young forest. On all these points we need much instruction. The great mass of farmers have never given the least attention to forests, except to cut them down; they have but a vague idea of what it is best to do when efforts are to be made to improve and increase the forests. When as much attention has been given to the raising of forest trees as has been given to the raising of blooded animals, we shall begin to realize the importance of improving our forests by selection; but now how very few have given a single thought to the subject! When a tree is to be cut, the quality of the wood for lumber is considered, and the more valuable it is for manufacturing purposes, the more eager is the owner to cut it, even though it be the only tree of its kind that bears seed within a long distance. The fact that it should be left to seed the surrounding territory is not thought of, and the axe does its work, destroying a valuable tree that, if it had been left, would have changed for the better the whole surrounding forest; and while this tree is cut, probably one standing very near it is left, because it is of no value for lumber; left, not only to encumber the ground, but to scatter its seeds over a wide territory, and thus cover the land with trees of little or no value; and this is done simply because the farmer, in his haste for profits, did not look far enough to realize that he was cutting the wrong tree. What should we say of a farmer who made it a rule to kill all his best hens, sheep and cows because they would sell the best, and keep to breed from all that were so inferior that he could not sell them; should we not think him to be very short-sighted? Yet this is just the principle that we have adopted in our forests, and the same principle was adopted by our ancestors back to the Pilgrims. If our ancestors during the past two hundred years had adopted the principle of selection, and as far as possible permitted only the best trees to seed the land, what a wonderful change it would have made in our forests. Such worthless trees as the pitch-pine and red wild-cherry would have been supplanted by trees of more value, even on the sands of Cape Cod.

When we attempt to cover our land, even by transplanting trees, for want of practical knowledge as to the best trees for particular soils, we make disastrous mistakes, and too often plant trees that are not only not fit for lumber, but are of but very little value for firewood. In these days of coal burning we have no need to encourage trees for fire wood, but all of our efforts should be directed to the encouragement of trees that are of value for lumber. Then we should get wood enough to kindle our fires from the limbs, and tops that are not large enough for lumber. The pitch-pines should be rooted out, and white-pines or red-cedars set in their place, either of which will grow quite as well in light, sandy soil, and the latter will grow better on the sea coast than the pitch-pine. The gray birch, except where there is a demand for hoops for kegs, should not be permitted to spread over the land, for wherever the birch will grow the white-pine will also grow, and so will the oak, both of which are very valuable for lumber. The wild black and red cherry grow on land where both the chestnut and the walnut would grow, and make timber that always commands a ready sale and good prices. With a little foresight, the farmer could gradually change his woodland from trees that make but inferior firewood to those that would make valuable lumber, and this, too, without the expenditure of but very little time. One or two valuable trees for timber saved or planted, to each acre, would in time seed the whole forest, providing the trees of no value for timber be kept down so as to give the desirable trees a chance to grow.

It is important that every farmer who has a portion of his farm covered with forest trees should give the subject attention enough to enable him to so manage this portion of his farm that trees adapted to the soil and locality, which are valuable for timber, will gradually take the place of those that are not adapted to the soil, and are of little or no value for timber.

SEED OF THE WHITE PINE.

It is very surprising that so little appears to be known about the growth and ripening of the white or Weymouth pine seed; on inquiry it will be found that but very few can tell at what season of the year the cone begins to form, how long it is in growing, or at what particular season the seed should be gathered; search the books and but little satisfaction will be gained, yet nature all around us is continually spreading before us her invariable action in fulfilling the established natural laws. At first thought one would suppose that a tree so widely scattered over the country could not mature its seed without being observed by every school boy; but we Americans are in such haste to gather both knowledge and gold that we cannot stop to examine so small a point as the twig of a tree; we hurry on to take a hasty survey of the rushing waters of a Niagara, or climb 20,000 feet above the ocean's level to catch a glimpse of the surrounding space. The wonderful operations of nature that line our pathways and surround our homes, and the pennies that might be gathered by patience, are entirely lost sight of in our eagerness to catch a view of distant grandeur, or to gather large lumps of gold.

We are very apt to forget that the most valuable knowledge is that which is based upon the details, and gathered fresh from the teachings of nature.

We are led to pen these lines by calling to mind a conversation we listened to a short time since relating to the ripening of pine seed, and when to gather it; one suggested any time in the winter, another in November, and when it was affirmed that the cones should be picked from the tree before the frost had opened them, or the seed would be dropped out, a very wise individual stepped up and settled the whole controversy by saying that the cones should be permitted to drop off and gathered at leisure; and declared he knew, because he had gathered many bushels; the company scattered, all but one apparently satisfied that the seeds remained in the cones all winter.

Having carefully observed the growth and ripening of the seed of the pine, we will give our readers the result; if any one has found it different, it can only be because nature changes her methods in different localities.

A careful observer will notice, the last week in June, on the new wood of the pine twigs, what appears at a distance like a large bud, but on close examination will be found to be a very small cone. This will grow quite rapidly until the middle of July, when it will be from three-fourths of an inch to an inch in length; from this time until the following spring it will grow but very little, but as soon as the growing season commences the cones grow very rapidly, and very soon after the fifteenth of June they will attain their full length. Between this time and the first of July the male blossoms appear in little clusters on the new wood. The seeds ripen early in September, and unless gathered before a heavy frost they will drop out and be scattered over the surrounding territory; many of the cones, after the seeds have dropped, remain on the tree all winter, and are often seen quite late in spring.

THE COTTON CROP FALLING OFF.

According to the Agricultural Department Reports.

The high condition of cotton in June and July was not maintained in Aussust and September, according to the agricultural department's crop report. Severe storms and excessive rains prevailed, rust destroyed the foliage and worms injured the fruit worse than for several years. The average of condition has fallen from 87 September 1 to 78. The average in October of the census year was 81, and the ultimate yield 4-10 of a bale. The greatest decline is in the region of the highest rate of yield, reducing the relative production. The increase of area since 1879 is estimated at 26 per cent. The figures must not be considered final, as the date of killing frost and autumn weather may cause a variation of a quarter of one million bales. The condition by States follows: Virginia 78, North Carolina 77, South Carolina 79, Georgia 87, Florida 88, Alabama 81, Mississippi 80, Louisiana 77, Texas 78, Arkansas 70, Tennessee 74. The expected yields with average future conditions are: Virginia 32-100 of a bale, North Carolina 38, South Carolina 35, Georgia 35, Florida 23, Alabama 30, Mississippi 41, Tennessee 35; average 36 3-4 hundredths of a bale. It indicates 1,000,000 bales more than the present crop, subject to meteorological conditions.

The corn crop is made with very little injury from frost and is a yield slightly above an average. The general average of condition is the same as last month—95—a figure no attained in October since 1879. The yield per acre will be returned next month, but present indications point to fully 26 1-2 bushels per acre throughout the country. Nebraska stands highest. Only Wisconsin, Minnesota, Kansas, Virginia, North Carolina and the Pacific coast fall below 90. The returns for wheat are on the basis of yield per acre for the area harvested. The average is about 10 1-2 bushels. It is only nine bushels on the area sown, which was nearly 40,000,000. The area harvested is not precisely determined, but will probably not much exceed 34,000,000 acres. The States averaging four to six bushels are Virginia, the Carolinas, Georgia, Alabama, Mississippi, Tennessee, West Virginia, and Kentucky. Missouri returns 8 bushels; Ohio 8.1; Illinois 9.2; California 9.5; Pennsylvania 10; Indiana 10.8; Iowa 11.2; Minnesota and Maryland 11, 5 Wisconsin 11.9; Texas reports 12.5 with a large area, New York and Oregon 15.5, Michigan 29 and Colorada, Montana, Utah and Washington 21 to 23 bushels. The average yield of oats will be nearly 28 bushels per acre, insuring a crop in excess of 600,000,000 bushels. The rye average is 10.4 bushels, nearly two bushels short of the yield of 1884. The average yield of barley will be about 22 bushels per acre. The condition of potatoes has declined seriously on account of the prevalence of rot in New York and Michigan and elsewhere. The decline from September 1 was 11 points.

TRANSPLANTING EVERGREEN TREES

BY WM. C. STRONG.

From an Address before the American Forestry Congress.

In the northern belt of the United States the time for the successful transplanting of trees is so limited that the work is necessarily hurried. In this respect the western shores of Europe, which are affected by the warm breath of the gulf stream, present a great contrast. In England, for example, the work of transplanting proceeds in every month, from October until May.

We, on the contrary, have a brief limit of about a month in the fall and but little more time in the spring. For evergreens, the month of May has generally been considered the only suitable time. It is agreed by all that they should not be moved late in the fall, nor even in early spring. As their name implies, evergreens are always in foliage, and consequently are at all seasons demanding a supply of sap from the soil. If a spruce tree, for example, is planted in March or April, when the ground is wet and cold, the roots will remain inactive, while the dry winds are searching through the branches, and in order to supply the evaporation the leaves are having a severe and oftentimes fatal draft upon the sap of the tree. The case is still worse when a tree is transplanted late in the fall, for the roots cannot take hold until the ground becomes warm in the spring, and yet the leaves are in action to some extent, even in winter. It would therefore seem essential to plant at a time when the roots can speedily move and obtain a supply for the demand from above. In May the ground is becoming warm, the dormant life of the tree is aroused, the roots are coming into action and form rapidly. It is therefore a good month for planting. But the young growth in June is soft, the days are hot, evaporation is excessive, and as a consequence transplanting is often a severe check. It is well known that most kinds of evergreens make little growth for the first season after planting.

Are we, then, limited mainly to the month of May for doing this work? I am sure that both theory and results will answer No. A consideration of the nature and habits of evergreens will indicate that in some respects even more favorable conditions may be obtained in August and early September than in May. The roots of most evergreens continue to grow throughout the summer. If they are summer pruned with a spade, new roots are freely thrown out. On the contrary, the growth of branches of most kinds is in June and early July. After this the only process is the maturing and hardening of the growth. Now it would seem upon this statement that all the conditions for removal are obtained in August. The wood is now fairly hardened and evaporation is much less than in June. There is to be no immediate tax for new growth. At this season the earth is thoroughly heated, and when well pulverized gives a gentle moisture and warmth which greatly encourages the formation of new roots. Moreover, the nights are usually cooler and dewy, so that the tree has, as it were, a gentle bottom heat, with coolness and moisture at the top. These are the precise conditions for the propagation of evergreens from cuttings. It is well known that cuttings taken in August will root more speedily than at any other season. And a young tree being only an advanced cutting, it stands to reason that it will as readily form new roots in August and become established in its new quarters.

But may we expect that it will get such hold in the soil as to be able to endure the winter drain? This is a question to be settled only by experiments. In the year 1870 I made a trial so extensive and so severe that I have since considered the question as fully answered. I will state the facts. Having a tract of land which I decided to convert into a pond for the purpose of cutting ice, it became necessary to transplant about 40,000 spruce, hemlock, aborvitæ, and other evergreens, in the month of August. These trees were of the usual nursery size, from two to five, or six feet in height. The field to which they were removed was about half a mile distant, rather exposed, and on the north side of a hill. It had been previously well-ploughed with furrows opened as for potatoes. But August proved to be an exceedingly hot, dry and cloudless month, the sun glaring like a ball of fire day after day and week after week. Yet the work must proceed in spite of the opinion of an eminent planter that every tree would die. At the commencement each tree received a third of a pailfull of water after planting. But this process was laborious and was not continued for the bulk of the trees. The work proceeded for weeks in the broiling heat, without a drop of rain, until it was finished about September 15th. I had occasion well to remember the remarkable fall drouth which followed—the projected ice-pond receiving no water until late in November. Yet the result was a complete success with scarcely the loss of a tree. It was a pleasure to take up samples in November and see the mass of young roots which had formed in the soft, virgin soil. The fact that they had received no rain was more favorable to the formation of roots than cold and excessive autumn rains would have been. And I felt sure that, though the trees had been taken from a sheltered valley and placed on a cold north exposure, yet they had such new root-vigor that they could well endure the drafts of winter. This proved to be so, scarcely a tree being injured in the following winter, and the growth during the next summer was as vigorous as though the trees had not been removed. This trial was so extensive and under such severe tests, resulting in such complete success, that I have since regarded the month from August 15th to September 15th as eminently suited for transplanting evergreens. Of course the usual conditions to protect the roots from sun and air are to be carefully observed, and also a word of caution may be added: that if forwarded in boxes, for any considerable distance when the weather is hot, some precaution should be taken to prevent heating.

—Owing to weather in Great Britain, as nearly as can be estimated, the damaged wheat is about one-eighth of the total produce of the United Kingdom—say 1,000,000, out of the 8,250,000 quarters available for consumption. This damaged wheat is more or less sprouted and discolored, and a great deal of it will not be fit for any but the coarsest flour. The damage to the barley crop is still greater, as about one-fourth of the crop was lying cut when the rains began, and this has been quite spoilt for malting purposes.

Questions & Answers.

☞ *All questions to the Editor, desiring answer through the* PLOUGHMAN, *should be accompanied by the full name of the correspondent.*

LAYING DOWN A LAWN.

Editor Massachusetts Ploughman:

Will you kindly inform me, through the *Ploughman*, which is considered the better season for laying down a lawn—the spring or fall—and, if the latter, what portion of the fall; also, what is the most suitable seed for that purpose, and the quantity needed per acre?—Yours, truly, E. H. B.

Boston, September 29, 1885.

[The autumn is believed to be the best time to seed down to grass, because it is a season when the weeds will not trouble as in the spring, but a lawn may be laid down at almost any season, providing the soil is prepared as thoroughly as it should be, and it is located where water can be applied freely. When laid down in the autumn, the work should be done between the first of August and the middle of September; the next best time is early in the spring; the soil should be thoroughly prepared before winter sets in, so that as soon as the fruit is out of the ground the grass seed may be raked, or harrowed in. As to the variety of grasses, many sow nothing but Kentucky blue-grass, others mix with it red-top, and some white clover. Flint, in his book of grasses, recommends the following mixture for an acre for a permanent lawn:

Meadow Foxtail	1 lbs.
Sweet-scented Vernal	1 "
Redtop	3 "
Hard fescue	3 "
Meadow fescue	4 "
Red fescue	3 "
Italian rye grass	6 "
Sheep's fescue	1 "
Perennial rye grass	1 "
Timothy	1 "
June, or grass	2 "
Rough stalked meadow grass	2 "
Yellow oat grass	1 "
Perennial clover	4 "
Red clover	3 "
White clover	1 "
	44

Since the introduction of the lawn-mower the tendency is to have but few varieties, especially where water is used freely.—ED.]

Miscellaneous.

THOROUGHLY DRY SEED CORN.

[Correspondence Ohio Farmer.]

The careful farmer has by this time selected his seed corn and put it where it will become thoroughly dry before freezing weather. If the fall be dry long enough, and the winter does not close in suddenly, sending the mercury down below zero in November, corn that has been tassled and hung up in the corn loft will be likely to be safe against the hardest freeze. But there is a risk. If it does not get thoroughly dry before the long, sharp freeze comes, his seed corn will be damaged. It may not be destroyed, but its vitality or germinating power will be lessened. It has been my custom to select seed corn in September and hang it up in the corn loft. I never have failed to have such seed grow more vigorously than that taken from the crib. I have preferred to dry and keep it in the loft, to storing it in the kitchen or kitchen loft as many do, because we do not like to convert the living room into a granary, or to store there such things as invite mice. Nor am I sure that the seed corn stored and dried in the kitchen is equal to that dried and stored in the corn house. That in the corn house is more uniformly dry, and is subject to less variation of temperature and moisture than corn that in the kitchen loft. Then in winter the steam and heat of washing or baking day give such a maximum of moisture and heat as is never reached in the corn house loft. In the average kitchen the thermometer not unfrequently runs up to 90 degs. at noon and down to 12 degs. at midnight—a range of more than 100 degs. in twelve hours. The corn is affected by the expansion and contraction incident to such variations of heat and moisture.

Seed corn thoroughly dried at a temperature of 70 to 80 degs. has been shown by Dr. Sturtevant to germinate "more quickly and better" than did seed taken from the crib. Seed corn taken from the crib and exposed to a temperature of 206 degs. before putting into the germinator all perished. Seed thoroughly dried at a temperature of 90 to 120 degs. and then exposed to 206 degs. before putting into the germinator all perished. Seed thoroughly dried at a temperature of 90 to 120 degs. and then exposed to 206 degs., germinated when placed in the germinator. This tends to show that corn dried at a moderate temperature and kept there will germinate at a temperature which is destructive to corn not so dried.

Dryness rather than *warmth* seems to be the most important condition for safely keeping seed corn. Last fall our seed corn selected the first week in September and hung up in the corn house became well dried before the extremely cold weather set in. When the cold snap in November came we were about to remove it to an upper room where it would not be subject to such extreme cold as in the corn house loft, but on examination I found it so well dried out that I determined to leave it in the corn house loft. It wintered there perfectly. On testing it in April, between sods out of doors, 100 per cent. germinated. That taken from the crib out of doors showed, under like conditions, a germinating power of only 76 per cent., notwithstanding the corn last fall was the dryest, soundest and best matured crop grown in my recollection. The corn in the crib was so good that neighbors came and asked for it to use for seed, and in every case they reported well-pleased with it.

To test the comparative merits of the two, we planted in the same field some of the two kinds. That from the crib was in no way equal to that which had been selected in September and hung up in the corn house loft. It did not come up as quickly, evenly or vigorously. It seemed weaker and had not as good color. This difference was apparent until the corn was worked the second time and the weather became warm. This is but one of many unrecorded proofs that the seed selected in September early and thoroughly dried before cold weather, is safer seed and better every way than that taken from the cribs.

Dr. Sturtevant, in one of his bulletins, reports a line of experiments tending to show that the *time of ripening* can be made earlier by earlier plucking of the seed. His tests, as I remember, ranged from corn pulled when in milk-to that taken from the crib. The time of ripening varied with the time of gathering before maturity. The earliest gathered germinated first when planted the spring following and matured first.

With this hint, we farmers can safely pull our seed corn in August, and, by hanging it up then, have it so thoroughly dried before the November cold that it will withstand an arctic winter. So essential is the quality of *dryness* to enable corn to resist cold or heat, that we should kiln-dry corn if not dried out before October. Either that, or place in a room where it will not freeze. If thoroughly dry, freezing will not injure it. If not dry, it is easily injured by freezing. Its vitality may not be wholly destroyed, but will be lessened so that it is poor seed.

Last spring, it will be remembered, the planting in the Miami Valley was mostly done in a cool, wet time. Corn came slowly. Some did not come up. This was attributed to the cold, damp weather. Now if the seed had all been as good as it might have been, if properly saved, there would have been less complaint. Dent corn will germinate at a temperature below thirty-seven degrees and forty-one degrees, says Dr. Sturtevant. The lower the temperature the longer time required for corn to germinate. The atmospheric conditions last spring were not most favorable for germination, but the general excellence of the seed, together with the mellowness of the soil, helped up the average stand very much. If farmers have not already secured their seed corn, there is no time to lose. Corn is not so "well matured, and will not be, as it was last year. Hence, the greater need of care in securing our seed beyond preadventure.

BEE NOTES FOR OCTOBER.

L. C. Root, Mohawk, N. Y., in the American Agriculturist, says: "During the present month all colonies should be well protected from the cold. All openings for ventilation should be closed, and the entrance to each hive contracted. If care is used in this respect, breeding may be continued much later, which is extremely desirable. Surplus combs, which have been used for extracting, should be removed, and general preparations made for winter. If bees are to be wintered indoors, it is all important that the room be clean and sweet, and well prepared for the bees. Many who propose to build, or arrange a new room for this purpose, neglect doing so until too late in the season. If a wall is to be laid, or plastering done, or even green lumber is to be used, the work should be done early, so that all may become thoroughly dry. Facilities for thoroughly ventilating a wintering room should be supplied. The manner of storing the bees in winter quarters will be described later. Some do not have facilities for wintering bees indoors, and other persons advocate out-of-doors in preference to indoors. I am strongly advocate wintering in the house, I am aware that it is better to winter out-of-doors under favorable circumstances than indoors under unfavorable conditions. As to the needs for out-of-door wintering: It is well known that bees do not winter so well upon their summer stands as they formerly did. The cause of this, I believe to be, that the country being so thoroughly cleared of its forests, the winter winds are more cold and searching. This being so, we must resort to some means of giving our hives protection. First, then, it is important to select as sheltered a place as possible to set the hives. Next, it is generally agreed that some sort of packing is necessary. Last winter I made some experiments in out-of-door wintering, the results of which were of value to me. The outer cases of my hives were large enough to allow about four inches of packing on all sides of the brood combs, and six inches on top. I used both chaff and dry sawdust for packing, and both proved very successful. The hives were tipped slightly to the front, so that the dead bees were easily removed. The brood combs were raised about an inch from the bottom board, so that room was afforded for the dead bees to drop below the frames. A large entrance stick, to fill an entrance one inch deep and four inches wide, in front of the hive, was supplied, with a small opening made in the center of it. This entrance stick could be taken out, to remove the dead bees when necessary, and replaced to protect the bees from cold. Next, and most important of all, the hives were surrounded with a perfectly tight enclosure. This I consider of extreme importance. Experience has proven that bees can stand extreme cold weather, if not subject to drafts of cold air. Some of my experiments, which have brought me to these conclusions, have been dearly bought, and I urge those who have not had experience to consider them well.

HOW PEAT IS GATHERED FOR FUEL.

The gathering of the peat harvest in many parts of Ireland and Scotland is a matter of much importance to the inhabitants, a wet season seriously interfering with the necessary operations. The cutting commences early in the season, as soon as the winter and spring rains have drained off the surface. In Ireland, a long, narrow slip, measuring from three to six feet across, is cleared to the depth of a foot or so of the light, spongy peat and heather which form the surface. Extending back from this, a certain space of surface, called in some districts a swarth, is leveled and prepared for the reception of the blocks of peat, which, as they are cut, are spread closely upon it to dry. The peat, or turf, as it is almost invariably called in that country, is cut into narrow, rectangular blocks, from one foot to eighteen inches in length. The implement used in cutting, called a slane, somewhat resembles a spade, with a flat piece of steel attached to the bottom at the right side, and turned up at right angles. The blocks are cut from the mass with a downward thrust of the implement, the arms alone being used, without the assistance of the foot, as in an ordinary spade. After the blocks have lain for some time, and the sides and upper surfaces have dried somewhat, they are turned and then placed on end in large stacks, which are piled together in larger heaps after the drying process has advanced. The work of cutting, turning and stacking the peat is not such an unpleasant occupation as might be supposed. It is cleanly work enough. There is no need to handle the peat in a wet state, though even then it does not stick to the hands of the person, and has no unpleasant smell. When it has dried somewhat, it is light, clean and easy to handle. It is unusual to cut the peat down to the level of soil beneath, the produce of the lower layers, although most valuable as fuel, drying into hard and brittle fragments, which do not bear handling or removal. When the upper matter becomes exhausted the remainder is sometimes dug out, mixed with water, and kneaded with the hands and feet. It is then cut into square blocks and dried in the ordinary way. The peat bogs of Ireland ought to be a source of considerable profit to that country; and but for the heating power of peat, which renders it unfit for use as fuel for manufacturing purposes, they would no doubt have long ago led to the development in that country of industrial and manufacturing activity similar, on a small scale, to that produced by coal in England. To remedy this defect in peat as a fuel various processes have been tried for compressing it so as to get rid of the large percentage of water always present in the best dried samples. These experiments have not, up to the present, met with any great success when tried on a large scale. Well-dried peat contains as much as twenty per cent. of water; and even when most of this is expelled, unless the peat is rendered compact and waterproof by some process, its spongy texture causes it to reabsorb a large proportion of moisture from the atmosphere.—[N. Y. Times.

—To properly select seed potatoes, it should be done when digging the crop. There is considerable difference in the yield of hills, even of the same variety and under the same conditions. By having selected at the proper time, the quality and prolificacy of the tubers can be understood to better advantage than at any other time.

—If you want to use petunias or other annuals in the house in winter, seedling plants should be selected at once; you can almost always find plenty in the beds about the old plants. Clear away the rubbish that is quite likely to be found there and give them a chance to become strong and robust before they are potted. If overshadowed by old plants they will be weak and spindling and wholly unfit for winter use. Early in October, at the latest, pot them and let them get well established in their new quarters before moving them to the house. If they are inclined to grow up tall without branches, pinch off the top and branches will start all along the stalk. It is a good plan to pinch off the tops before they have made much growth, as this causes the branches to start from the crown of the plant.

Meeting of Farmers

At the New England Agricultural Hall, Ploughman Building, 45 Milk St. Boston, Saturday, Oct. 3, 1885.

[HELD UNDER THE AUSPICES OF THE MASSACHUSETTS PLOUGHMAN ASSOCIATION.]

CONTINUED REPORT

OF THE DISCUSSION ON

"VINEGAR."

Old and New Methods of Manufacture duly Considered.

DR. H. L. BOWKER leads the Discussion,

FOLLOWED BY

DR. B. F. DAVENPORT, State Inspector,

HON. WARREN BROWN, President of the New Hampshire Agricultural Society, and others.

BENJ. P. WARE called to preside.

Phonographically Reported expressly for the Mass. Ploughman.

[COPYRIGHT APPLIED FOR.]

[Report continued from last week.]

Address of Dr. Davenport of Boston.

Gentlemen—There are a few other points in regard to the making of vinegar which Dr. Bowker has not explained, and which, perhaps, I can throw some light upon. The principle in making vinegar is simply the conversion of the sugar, or the saccharine organic product in apple juice through alcohol into acetic acid by the process of oxidization. That can be done in two ways, by direct chemical means, by the action of finely-divided metal, such as platinum. And alcohol can be changed into acetic acid; but we know of no way of changing sugar or saccharine material into alcohol except by fermentation. Fermentation is simply the result of vegetable growth. It is oxidization taking place through the action of vegetable growth. The vegetable called ferment or bacteria is full of that kind of life and will reproduce it in beer and sugar. It requires nitrogen or albuminous matter or nitrogenous substance in order to enable it to live. In the presence of sugar, in the presence of albuminous or nitrogenous material, the ferment, or yeast plant, can grow and live. And they use sugar for the formation of alcohol. On an average two per cent. of sugar will make about one per cent. of alcohol, and one per cent. of alcohol will make one and three-tenths of acetic acid. Now, practically in the conversion of alcohol into acetic acid we always some loss by evaporation. So that the closest we can get by the conversion is about one per cent. of acetic acid out of one per cent. of alcohol. That allows for the loss of about one-fourth of one per cent. If the process of oxidization goes on further, the acetic is changed to carbonic acid and water. Now, in the presence of sugar, the ferment will be converted into the form of vinegar if sufficient sugar is present. Twenty-five per cent. of sugar would be sufficient, with air and fermentation and fermentation, and the formation of alcohol, the presence of 16 per cent. of alcohol would prevent fermentation.

"Oxidization" Compared with the "Cask" Method.

Here is one point I must differ from Dr. Bowker on. While the process of fermentation is going on you don't want to have any acid formed at all until your sugar is changed into alcohol, because the presence of a small amount of acid will interfere with the alcohol. You want to change your sugar into alcohol completely before the alcohol is changed into acetic acid. Now, this change, or oxidization, may be accomplished, as I said, by direct chemical way, by the action of very fine platinum metal, or is frequently done by exposure to the air, in the old way, called the cask method, or in the more modern way, or the quick German way of using an alcoholic solution in such a manner as to expose a large amount of surface to the air, and produce a change more thoroughly and rapidly than by exposure to the air in the old farmer's method, and so secure more rapidly the change of the sugar to alcohol and acetic acid. It has always been said that the old method, or the cask method, is a very long process, but I suppose they consider the product a little more highly flavored after passing through that process. With the passage of sugar into the forms of alcohol and acetic acid certain other products are formed. There are others, which give an agreeable flavor pleasant to many persons, and, in the old process, they are made better than in the rapid process of generation.

The "Luxembourg" Method.

There is another method which we really come near the public with as well as the revolving—the Luxembourg method. By that I have seen cider changed in about seven days into strong vinegar. Vinegar made in that way contains between five and six per cent. of acetic acid, and can be made in as many days. The whole process can be completed in five or six days, or, at furthest, in not more than a week of time. In the oxidization of alcohol into acetic acid, the process goes on, the liquor becomes weak and sourer until all the alcohol is consumed. When there is any further process of oxidization in the change of alcohol into acetic acid, the acid itself is further oxidized and loses its strength. It becomes changed into carbonic acid, and if it goes on the liquid will all be destroyed so far as the value of vinegar is concerned, and it will become flat without any acid in it.

In regard to what Dr. Bowker has said about the addition of strong acid in starting fermentation—I was not aware that it could be done. I am aware of the process of starting fermentation by using some strong white wine vinegar, or some strong cider vinegar. The object of that in making vinegar is by adding strong cider vinegar they add the same kind of fermentation that is already in process—a kind of organic growth, or bacteria, and so the change is started, and that organism has a very rapid growth; and if the liquid has the material for sustaining that growth, it will much more rapidly change the alcohol into acetic acid. But, until the sugar has all been fermented and changed into alcohol, I hardly think it would accomplish that result. It may be that this theory of this process can be criticised, but I think, however, it is true. I do not know that I have anything further to say on this subject. I have prepared no special address. I am prepared to hear what was said than to speak myself.

The "Vinegar Standard."

But there is a certain point that I should like to speak to farmers about, and that is in regard to the standard of vinegar. Under our statute there is provision for two classes of vinegar. First is cider vinegar. It may be made exclusively from apple juice and nothing else, and the other includes all other kinds of vinegar. Under the statute, cider vinegar is required to have not less than four and one-half per cent. of acetic acid for market-able purposes. At that point the State draws a line between apple juice and any stuff or stock and cider vinegrr. As a matter of fact, pure apple juice will make a vinegar of not less than five per cent. acetic acid. I expect the average of pure apple juice has been of acetic acid six and six-tenths per cent. and three and three-tenths per cent. of what we considered the residue. But that statute I had supposed was principally for the protection of the farmers' interest against the competition of colored and white wine vinegar. That white wine vinegar may be made of any strength up to about sixteen per cent. When you get to about sixteen per cent. of acetic acid present, no more change will take place. It will act as a preservative. Now, there are several commercial competitors of cider vinegar, which include simple vinegar and wine, colored, or vinegar made by the use of whiskey and alcohol and fermented glucose, or anything of that kind. Some of it is colored to look

The Ploughman.

BOSTON, SATURDAY, OCT. 17, 1885.

☞ *Persons desiring a change in the address of their paper must state where the paper has been sent as well as the new direction.*

MEETING OF FARMERS.

There will be a meeting of Farmers in the Hall of the *Ploughman* Building, Saturday, Oct. 24th inst., at ten o'clock in the forenoon. Details to be announced next week.

There is no such battlefield in the country as the Gettysburg battlefield, and it was exceptionally proper that the numerous regiments of the Union army that fought for three consecutive summer days on that hallowed ground should repair thither, after twenty-two years, to erect monuments as memorials of what they severally did in that vital struggle for the safety of the Union. There were only a few such memorials erected on that field two years ago, and to-day there are more than seventy, representing not less than eleven States. Massachusetts has a dozen in position, all of marked propriety and excellence. There were eight eastern Massachusetts regiments, companies and batteries, that dedicated their memorials with solemn ceremonies last week. If the monuments erected are not of equal merit in point of design, they at least all alike betray originality. The bared arm and uplifted sword surmounts one; another bears on its granite face a horse's head above a horse-shoe, with two crossed sabres; another displays a bronze medallion of Daniel Webster's face, under which are his immortrl words on Liberty and Union; still another is a statue of a sharpshooter standing behind a bowlder and taking aim across it with his rifle. The field of Gettysburg will become more noted as the years roll on and the Union grows old.

The Northern Pacific Railroad Company is under a contract to withdraw all of its timber lands from sale or disposal, and the Montana Improvement Company is given the exclusive right to cut timber from the lands. In return for this privilege, the Improvement Company agrees to transfer to the Railroad Company 1001 full-paid shares of its capital stock, of the value of $1,000,100, reserving for itself shares valued at $999,900. The Improvement Company also agrees to erect, at its own expense, all mills, and to furnish all plant necessary for its business of timber cutting. Special timber agent Haley writes to Land Commissioner Sparks that these two corporations have caused to be cut from the public domain timber valued in its products at nearly three-quarters of a million dollars. He says he has found great difficulty in getting witnesses to testify to the facts as they knew them. The Montana Improvement Company had agents along the line endeavoring to suppress facts concerning its operations. He says the company is an unscrupulous corporation, that will leave nothing undone to gain its point. No reliance can be placed upon statements made by officers of the company. The public timber lands are principal theft of their wealth by conspiring corporations, that seem to think everything is theirs upon which they can lay their hands In these days of forestry revival, all such acts of robbery should be taken notice of by those most interested.

The American Board of Commissioners for Foreign Missions is holding its seventy-fifth annual session in Boston this week, beginning on Tuesday. It celebrated its semi-centennial here twenty-five years ago, returning after another quarter century of labors and triumphs. The reports to be read, the speeches to be made, and the congratulations to be exchanged, will together work up the occasion to one of the highest interest. Missionary work did not by any means begin with the organization of the American Board, but it is the glory of the Board that it first enlisted the American churches in the work of preaching the gospel in all lands and laboring for the conversion of the heathen. Before the Board was organized, America was itself considered a missionary field. The Indian tribes were the chief object of the attention of the churches. But the sailing of Judson to India opened a new era in American missionary work. The foreign field has been occupied by it since that memorable time. An army of workers has been sent out and maintained by the Board, that for numbers, zeal, courage, and the highest form of devotion, challenges a parallel in the history of religious enlightenment and progress. Not less than 3500 faithful representatives of a faithful constituency are in Boston from abroad to attend the sessions of this meeting, and they are cordially welcomed to the city in warmest hospitalities.

The trouble in eastern Europe is far from being quieted by the conference of the powers. The latest understanding is that Germany, with the approval of England, France, Austria and Russia, has presented a new plan for the adjustment of the Bulgarian question. Mr. Gladstone is quoted as favoring Bulgarian unity, but, as trusting that its territory will not exceed its present limits, The excitement in the east is without abatement. Turkey is making active preparations for war, a force of 126,000 men being now under arms, and it is decided to call out a portion of the militia. Two large armies are being formed, the one to operate against Eastern Roumelia, the other to be kept in readiness against either the Bulgarians, Servians, or Montenegrins. Large steamers are engaged in the transportation of troops. Although the Sultan hopes for a diplomatic settlement, the present military demonstration is made to overawe the Balkan nationalities. But the military party in Turkey may prove strong enough to hurry the Sultan into war against his wishes, in order to avoid exciting the Mussulman population. The war fever rages in both Servia and Greece. The Servian government has made contracts with English, French and Austrian firms for outfits for 25,000 troops, and 35,000 horses have been contracted for. The London bank war loan has been raised to $5,000,000. The king of Greece has called out 40,000 of the reserves.

Finally the photographer's camera is to be made serviceable in matters pertaining to justice, police duty, and the proof of crime. A volunteer detective in New York a few nights ago brought his pocket camera to bear in certain of the most questionable resorts of that city, after the hour at which the sale of liquor is prohibited, and produced instantaneous effects which will prove of more value as evidence in a court of justice than all the swearing of the best trained witnesses in the opposite direction. This fine detective work was done at the instance of an association of property owners who are determined to break up these establishments, but have hitherto found it impossible to secure the necessary evidence. The purpose is to extirpate the well-known haunts of vice which infest the mercantile portions of a certain avenue, virtually destroying the business interests which center there. The adroit operator, secretly working with the light of the gas and electricity that illuminates the thoroughfare through the night, secured after one o'clock in the morning over one hundred negatives, each telling the story of violated law. The scenes copied in this faithful way are such as are to be found only in concert gardens, dance houses and variety shows. The evidence thus obtained cannot be rubbed out or lied down. A timely suggestion should rise in the thoughts of other people who are vainly trying to suppress certain kinds of vice because of want of actual proof.

Says "Rigolo," in the New York Sun, in view of the recent great failure in Wall street: "In any case, and whatever may be the issue of these two failures, it becomes more evident than ever that the best thing for an outsider is never to come near Wall street. But if his natural disposition compels him to do so, there are but two ways for him to deal; one is, to buy his stock, pay for it, and take it a way; and the other is, to play the market on the same basis as the professional gamblers do their play in a gambling house. They don't ask margins of each other; they play on word of mouth until the game is through, and then see who is the winner or loser. If they have no confidence in each other they won't play at all, but the moment they sit down they consider that they are equally square and responsible. True, that the stranger coming into a gambling house has to pay cash for his chips, but he has the moral certainty that he can always cash them when he leaves. In Wall street, however, it is not so." The above may be taken for an illustrative graphic sketch of Wall street as it is, rather than as advice either way in respect to entering it. As a rule it is always best for outsiders, whom the professionals call "lambs," to keep scrupulously away from its hollow and treacherous temptations. It is a power only for wrecking and ruining, never for building up.

ECONOMIC ORNITHOLOGY.

A branch of Economic Ornithology, as already announced by us, has been established under the Division of Entomology of the Department of Agriculture, and Dr. C. Hart Merriam has been appointed Ornithological Agent to take charge of this Divisional work. A circular just issued by Prof. Riley, Entomologist, announces that the scopé of the investigation will cover the entire field of the inter-relation of birds and agriculture, particularly from the entomological standpoint. The inquiry will be directed primarily to the *food habits* of birds, and likewise include the collection of data bearing on the migration and geographical distribution of North American species. The co-operation of the American Ornithologists' Union is hoped for in this latter inquiry, Dr. Merriam being himself chairman of the committee on migrations of the Union aforesaid. The co-operation of farmers everywhere is likewise solicited, those having knowledge of food habits which are beneficial or detrimental to agricultural or horticultural interests being requested to communicate the same to Dr. Merriam. And the assistance of persons willing to aid in the collection of birds' stomachs is particularly desired.

Information is also solicited concerning the presence and habits of the so-called "English Sparrow" in the Southern States, and in the region west of the Mississippi. Until October 1, Dr. Merriam will have his headquarters at Sing Sing, N. Y., and after that date at the Department of Agriculture, Washington, and may be addressed accordingly.

A second circular, and more in detail, is simultaneously issued by Dr. Merriam, who says that the fact has long been recognized that birds are influential factors in checking the increase of insects injurious to vegetation, but that the extent of the services thus rendered has never been positively ascertained. A great difference of opinion exists among farmers as to whether certain well-known species of birds are on the whole beneficial or injurious. Many kinds which are really of great practical value are killed whenever opportunity offers. Hawks and owls are, as a body, almost universally regarded as injurious to the farmer, whereas, as a matter of fact, several of them never touch poultry, but feed almost exclusively on mice and grasshoppers. It is a well-known fact that the wholesale slaughter of small birds is followed by a serious increase of noxious insects. On the other hand, insect invasions which threatened devastation to large tracts of country have been cut nearly short by the timely service of some of our native birds.

In view of these well established facts, and many more which could readily be cited, it becomes obvious that a comprehensive systematic investigation of the inter-relation of birds and agriculture will prove of enormous value to farmers and horticulturists. This is the very investigation which the newly established branch of Economic Ornithology has undertaken, and in which it solicits the assistance and co-operation of interested persons.

Dr. Merriam observes that the food of all birds consists of either animal matter or vegetable matter, or both, and its consumption cannot but be either serviceable or prejudicial to the interests of mankind. Hence all birds are to be classed as beneficial or injurious, *according to the food they eat*. Many species are pronounced both beneficial and injurious and they cannot be rightly assigned to either category until the percentages of their food elements have been positively determined and the sum of the good balanced against the sum of the evil. In a very large proportion of our small birds the food varies according to the season, sometimes changing from vegetable to animal, or from injurious to beneficial. Again, many birds feed their young upon what they rarely or never eat themselves; and when they leave the nest the young eagerly devour what they discard as they grow older.

For these reasons it becomes necessary to ascertain the food of each species at different times of the year and at different ages. It is on all questions relating to this inquiry that information is desired, and special attention is invited to a list of questions which are presented in this circular. They number from A to K, inclusive, in the alphabet. In the investigation many important secondary questions present themselves. They are given in the circular to the number of twelve. Those who are disposed, therefore, to render any assistance in the investigation will be personally interested to obtain a copy of this circular, which may be had by application as above. All the questions referred to, primary and secondary, can be answered as fully as the correspondent chooses, either on separate sheets or on the blank sheet left on the circular, the answer in all cases to be lettered or numbered to correspond with the question. The exact date of all occurrences reported should be given when possible. The necessary blanks and instructions will be furnished, on application, to those who are willing to assist in the collection of birds' stomachs. In an investigation of this character it will at once be seen that a step is about to be taken that will abolish the guesswork and prejudices of the past together, and make actual knowledge shed its light where it can be of the greatest benefit.

THE DISTURBANCE IN EUROPE.

The cut-and-dried revolt of the people of East Roumelia against the continuance of Turkish government has suddenly precipitated an issue for all the European powers to consider. Before the present week is ended it will no doubt be better understood what they will decide to do about it, if anything. Ten years ago, a similar agitation in the Balkan peninsula, which contains the passes in the mountains which are the northern gateways to Turkey, brought on a fierce war between Russia and Turkey, the settlement of which was effected by the conference of all the powers at Berlin and the making of the Berlin treaty. To be brief, this action of Roumelia in its effort to form an union with Bulgaria is a plain setting aside of that treaty, which all the signatory powers to it are solemnly pledged to see kept intact in all its provisions. But Russia already comes out in support of the action of Roumelia and the declared determination of Prince Alexander of Bulgaria, and says she will come to the assistance of these two provinces just as surely as Turkey daces to march an army to quell their united action. That being so not only does it become clear that Russia turns her back on the pledges of the Berlin treaty, but the suspicion grows that she favored the rebellion.

France speaks out fearlessly and calls on the other powers to treat the affair as a fact already accomplished, and therefore not to be diplomatically interfered with. England has not yet found her voice in the matter. Turkey should have marched an army to the scene of disturbance at once, without saying a word to the other powers, which she had a perfect right to do under the terms of the Berlin treaty; but she hesitated, delayed until she could protest and appeal, and she has unquestionably lost the support of the other European powers, which she could have challenged if she had acted with a bold promptness. All the threatening trouble may be regarded as proceeding from the attitude of Russia; if Turkey should proceed to recover her rights by making war on Roumelia, and also on Bulgaria, and if the Czar should then proceed to carry out his open threats and attack Turkey, it is almost obvious that all Europe would shortly be up in arms to protect the pledges contained in the Berlin treaty. The conference that is to assemble at Constantinople will have to adjust more claims than one, in handling even that one. The real issue is, after all, the dismemberment of poor Turkey and the distribution of her provinces, and there is no end to the conflicts which will have to be quieted.

A GENERAL CATTLE QUARANTINE.

So much and such just complaint has been made against local and limited quarantines for cattle, that it is finally proposed to place the whole matter in the hands of the government in order that an uniform system of cattle quarantine may be established. It is admitted that the present local quarantines, working separately and sometimes at cross-purposes, and to be patiently endured until something better can be substituted for them, are the source of constant and great annoyance and vexation, for the obvious reason that they all contain different provisions of one kind and another, and that owners are thereby subjected to needless as well as costly delay. Naturally enough, too, out of these local regulations have sprung numerous scandals which do not tend to increase public confidence in the quality of the meat offered upon the market. It is above all things essential that there should be no room for such things, and that nothing like favoritism be allowed to prevail. Individual cattle owners, it is charged, have special advantages under the existing local quarantine system, and from them they are able to reap profits which are collusively denied to other individuals.

The Denver News states that there is good reason to suspect that the quarantine regulations of Colorada, New Mexico and Wyoming are being made the cover for wicked speculation; that the present quarantine laws place it within the power of big cattlemen to "bear" the price of Texas and other cattle; and thinks therefore that some other tribunal than the cattlemen should be clothed with the authority to say what cattle may or may not be brought across the boundary lines between States and Territories. The News says it is all right to protect our herds against contagious diseases, but it is all wrong to turn the quarantine law into an engine for the robbery of outside breeders who seek a market for their cattle in that region. It is charged, by way of illustration, that the New Mexico quarantine is used as a mere pretence to exclude Texas cattle, which are designed ultimately for the more northern market, in order to give the same market more largely to New Mexico cattlemen themselves, and in this way keeping up the price of their own cattle while putting down that of Texas cattle. In Colorado, on the other hand, it is charged that the effect of its quarantine has been to throw the business or bringing Texas cattle into Colorado into the hands of the members of the sanitary board.

This board, or its controlling members, have thus had it in their power to say what Texas cattle should or should not enter the State, and thereby to put down prices in Texas and put them up in Colorado, at a manifest profit to themselves. The cattle owners in Texas very properly complain that State regulations should allow its agents to discriminate almost as they choose, to their own personal advantage if they see fit. Cattle quarantine should be only to protect against contagious disease, never to allow individuals to make a profit by them. It is questioned by the Breeder's Gazette of Chicago, whether even under the uniform administration of the Bureau of Animal Industry matters would be any better; it throws out the suspicion, which is gaining currency, that the Texas people now desire that the Bureau should have supreme control, under the belief that they can use it to practically open the whole country to the free movement of Texas cattle, whether they may be diseased or not. It warns them against such an idea. It tells them plainly that if they seek to avoid unjust local quarantines, they must willingly submit to just general regulations. The Gazette concedes that one interest or another may control some of the agents of the Bureau for a time, but in the end all such agents will be displaced. Private or local interests must never be allowed to control.

THE FRIENDS OF THE INDIAN.

A platform of Indian policy was laid down at the present conference at Lake Mohawk, whose foundation statement is that the the Indian question can never be settled except on principles of justice and equal rights. In any such settlement, the property rights of the Indian should be sacredly guarded, and all obligations should be faithfully discharged. The object of all legislative and executive action should be, not the isolation of Indians, but the abrogation of Indian reservations as rapidly as possible. They should be permitted to diffuse themselves among the people. And annuities should be discontinued, as a source of idleness and pauperism. The Indians should be subjected, like others, to the laws of the United States and of the States in which they are resident, and therefore should be protected by the same laws. All the territory of the United States should be thrown open to their possible acquisition. And they should be admitted as early as possible to American citizenship. To carry out these purposes, it was recommended by the conference that certain measures should be adopted, as follows:—

The present system of Indian education should be enlarged, and a comprehensive plan adopted which shall place Indian children in schools under compulsion, if necessary, and provide industrial education for a large proportion of them. The present system of holding all land in common should be broken up, and each Indian family should hold a portion of land in severalty. All portions of the Indian reservations which are not so allotted should be purchased by the government at a fair price and thrown open to settlement. The cash value of the lands thus purchased should be set aside as a fund for assisting Indians in making industrial advancement. Necessary surveys of the reservations should be made, and the modification of present treaties with the Indians should be negotiated, the Indians being pressed in every honorable way to give their consent. All Indians abandoning tribal relations and consenting to take land in severalty should be admitted to citizenship at once. Some official should be charged with their protection and instruction during the transition period. Massing Indians in territories is opposed, and the growing public interest in their welfare is gratefully acknowledged.

A MODEL CITY.

In the town near Chicago, which is named for Mr. George M. Pullman, strange as it may seem, there is serious trouble among its inhabitants because of the fact that the town itself is altogether too much of a model; its affairs are administered with too much precision; they live too much according to rule; and other complaints of a like nature. That seems to be the substantial grievance, though it is disguised by the form in which it finds expression. This is a strike of the workmen in opposition to the proposed reduction of their pay, because of the the high cost of living in that community. They allege that they find it impossible to make both ends meet when the year comes round. Pullman is a place of model homes for the workmen in the Pullman Company's employ. Mr. Pullman, who is the President of the company, entertains very definite ideas of the way workmen ought to live. The town of Pullman covers some four thousand acres of low prairie lands about ten miles from Chicago, and it was begun to be built in 1881. In one year afterwards it had two thousand inhabitants, and at present it contains eight thousand. Socially, it is prononnced not a success at all.

The streets are all laid out with regularity, and all the houses were erected under the supervision of a single architect. Nothing which such a community might seem to need was omitted from the provisions. Every family lives in a separate private cottage, except such as may occupy apartment structures. There is a theatre, an arcade, a school, a church and parsonage, a market, a common stable, gas and water, a hotel, and a fire department, together with public squares and macadamized streets. The latter are kept scrupulously clean, and are planted with shade trees. Everything is spick-and-span new; no dilapidation; no shiftless look; no sitting in the doors in one's shirt-sleeves; no carelessly kept yards or houses. It is not the people who do all this for themselves, but the Pullman Company do it for them. The people are not even allowed to run the city government, lest they should not run it according to Mr. Pullman's ideas and theories. He charges so much rent for the church, and so much for the use of the public halls. The people are not free to express their own opinions; they have it already expressed for them in the Pullman formulary. The leases are all drawn so that ten days' notice is sufficient to put an undesirable tenant out of doors.

For all this, and with all arrangements and provisions for their comfort and happiness so nearly perfect, the people of Pullman are discontented, and have finally discovered a way of expressing that discontent in a strike. Their own frank statement is that they are made to pay so much money for a style of living that they do not want and would prefer to change. They are restless under the continual restraint imposed on them. They crave a larger freedom of action; the exercise of more individuality; the privilege of being a little dirty sometimes; and the right to sit in their shirt-sleeves in their doors at evening. They do not care to be taxed even to be the inhabitants of a model city. In short, they are human; and the human being in this country and in our age cannot abide being held in leading-strings, though he be thereby held back from error and conducted only in the path of virtue. There is a something within every man that prefers an individual way of being a good citizen. The men of Pullman do not like to be kept under guardianship and surveillance after working hours. But Mr. Pullman's theory does not include such sentiments on the part of those he seeks to benefit. He no doubt thinks the cast-iron method the correct one, even if not successful.

VERMONT'S REUNION.

The Vermont papers of this week are loud in their praises of the success of the legislative reunion at Montpelier. More than five hundred past and present members of the Legislature were at the State Capital in obedience to the call issued by the committee of the present Legislature. Among the old members we see the name of Col. Daniel Needham, who for four consecutive seasons was a member of the Vermont House of Representatives and of the Vermont Senate. Another name prominent in the New England Agricultural Society was that of H. K. Slayton, of Manchester, N. H., who was in the Vermont House of Representatives in 1858. Several gentlemen reported as ex-members who are now residents of other New England States, and some from Michigan and Wisconsin made a long journey to attend the reunion.

Both of the United States Senators from Vermont were present, as well as the present Governor, six ex-Governors and eight Lieut. Governors. Past members were invited to bring their wives, and the number of strangers at Montpelier during the week is estimated at more than a thousand. All were most hospitably entertained with three days of hand-shaking, feasting, and expressions of welcome—the first gathering of the kind which ever took place or was ever attempted.

CRUELTY TO HORSES.

Mr. Henry Bergh writes to the New York State Academy of Veterinary Science and Comparative Pathology, asking its aid in the passage of a law that shall govern and restrain blacksmiths in horse-shoeing. He would, it seems, have it made a criminal offence for any blacksmith to apply a red-hot shoe to a horse's foot, which he must, however, know is done only for the purpose of fitting it. Red-hot shoes are not, as a practice, nailed on to horses' feet. They are kept so only long enough to satisfy the smith of their proper shape, and when ready to be nailed to the hoof are plunged in a tub of water. It may be hot when the nails are driven through it, but it is not red-hot. To thoroughly cool a horse-shoe before applying it by way of measure, would very often necessitate its reheating; and people bringing horses to be shod would lose so much time in the operation that it is doubtful whether they would not prefer to let their horses go without shoes altogether. More than this, it is asserted that the application of a shoe even at white heat to the foot of a horse does not hurt him at all. Horses of high value *are* shod after other methods, but they are not such as could be profitably employed by the owners of ordinary horses.

A NEW MOTIVE POWER.

Electricity has long been talked of as a motive power, and is under consideration for running elevated railway cars. Montmorency Falls, near Quebec, have recently been utilized as a source of power for generating electricity, and thereby light. It has long been known that natural waterfalls could be put to practical service in this manner. They have been made to run a railway and to work various kinds of machinery. But the Quebec project makes all others pale before its greatness. The power possessed by them is capable of being put to a great many uses and of being transmitted for long distances. Lighting by electricity has long been a familiar phenomenon, but its application to machinery that shall cause continuous motion is a problem for whose solution the modern world is now quite ready. We understand that experiments continue to be made in New York with electric motors on one of the elevated roads. Also, that within a month an electric railway is expected to be in operation. On a small scale, electric railways have for years been running in European countries, while electric carriages and boats have been transported in Paris and Vienna. But the utilization of water power is the introduction of an entirely new agent in the electric field, and therefore calculated to excite very wide attention.

☞ *The Transactions* of the Worcester Agricultural Society for the year 1884 are issued in a handy pamphlet, convenient for examination and repeated reference. It is the sixty-sixth annual report of this prosperous and vigorous Society.

☞ *The Wheeler Eclipse Windmill* is so much a favorite with t hemany persons who have used and are still using it, that it is not at all strange the manufacturers advertise it as *the* favorite, as they do in another column. It at least enjoys a very wide popularity, and may truly be said to have a very large constituency. Besides this, it is hung all over with medals won at various fairs and exhibitions, including the Centennial and four other World's fairs. For very nearly a score of years it has been subjected to a constant testing, and a full score of thousand machines have been sold as the satisfactory result. Its attractive points are that it is automatic, storm-proof and noiseless. Its other many meritorious features will be found fully set forth in an advertisement in another column. The warehouse in Boston is the largest one cast of Chicago, where a variety of water-supply materials and machinery may at all times be found,—68 Pearl street, L. H. Wheeler.

☞ *A. W. Gray Sons'* latest improved Horse Power Machines, of which they furnish an illustration in our advertising columns, are acknowledged to give complete satisfaction in threshing and cleaning grain, and sawing wood, and their reliability has become a maxim in the farming community. These machines are of easy draft, very durable, and perform the best character of work in respect both to quality and quantity. Their establishment is located at Middletown Springs, Vermont. They issue a forty-eight page illustrated pamphlet, containing full descriptions of their machines, with terms, which are sent free on application. Their machines may be seen at all times at *C. H. Thompson & Co.'s*, 71 Clinton street, Boston, where they are for sale.

READ AND RUN.

—Special delivery letters wholly fail to pay the messengers.

— Regular steamboat trips to Nantasket are over for the year.

—The labor question is visibly entering more and more into politics.

—Mr. Parnell stands confessed the great political leader of Ireland.

— A partial revival of the Sprague industries in Cranston, R. I., is noted.

— The subscriptions to the Grant memorial fund now aggregate nearly $90,000.

— Extensive military preparations are progressing in and around Constantinople.

—The Gettysburg excursionists from Boston arrived back home last Sunday morning.

—The Canadian French claim that they speak the pure classic French of two hundred years ago.

—The whole number of females in Massachusetts, according to the recent census, is 1,009,036.

— British politics at the present time afford a fair example of the working of a large independent vote.

—The Boston police are unusually active under the administration of the new police commissioners.

—Cardinal McCloskey's death elicited many tributes to his memory from clergymen of all denominations.

—This is the time for venturesome chestnut gatherers to fall from the high trees, with the usual consequences.

— Pompeiian paper, mottled as if with the dampness of eighteen centuries, is the latest fashion in Paris stationery.

— Sir Joshua Reynolds wrote that "the reign of distortion and unnatural attitude begins in the dancing school."

— Continued rains in Mexico make regular railroad traffic impossible. There has been no such downpouring for years.

—According to the assessors' estimates, the population of Boston should be 438,543, instead of 390,406, according to the census.

—A sharp earthquake shock was felt, last Saturday morning early, in Wyoming, causing great excitement among the people.

— Another big gun for the government is about to be cast at the South Boston Iron Works, requiring over 100 tons of iron.

—Squattets and outlaws, under various pretexts, refuse to leave the Cheyenne and Arapahoe reservation in Indian Territory.

—The tenth annual reunion of survivors of rebel prisons is to be held in Tremont Temple, in Boston, on Wednesday, October 21st.

— The safe-makers finally assert that they have won a triumph over the scientific burglars in the unremitting warfare waged by the latter.

—The war fever runs high throughout Servia, and active preparations are going on to enforce Servia's demand for an extension of territory.

—There is such a glut of fruit in California this year that tons upon tons will be allowed to rot on the trees, as the price will not pay the picking.

—The Boston city physician discovers that people from out of town have been getting the benefit of free vaccination at the Chardon street bureau.

—Talking gray African parrots are going at six dollars a head in this market, so that nobody can now plead much of an excuse for being without one.

—An English wit once observed of a certain study that it was not necessary for a scholar to know it, but it was at least necessary that he should have forgotten it.

— Cardinal McCloskey, the first and only Catholic cardinal in America, died in New York last Saturday. An imposing funeral occurs from the Cathedral this week.

—Archdeacon Farrar planted a tree on Mr G. W. Childs' lawn, at Wooton, where a number of distinguished men, including General Grant, had each planted one before him.

—The cotton report for October was the least favorable of the season, reducing the percentage of condition at the close of gathering to 78, against 87 on the 1st of September.

—Prominent citizens of New York City propose to form a committee of seventy, with a view to secure a business management of municipal concerns, wholly aside from politics.

—The New York bank clearings for last week showed a gain of more than 150 million dollars as compared with the same week last year, and 77 million over the preceding week.

—Mr. Cyrus W. Field is determined that the monument erected to commemorate Maj. Andre (and himself) shall be preserved. He is fighting dynamite and public sentiment together.

—There will be no intercollegiate football for Harvard this year, her name having been voluntarily withdrawn from the association. Nevertheless, football is not going to die out at Harvard.

— Indictments and civil suits will probably be entered against the late water board and Mr. George A. Wilson, on account of transactions in connection with the purchase of Fisher Hill.

— The art school established in Columbus, Ohio, six years ago, has so far been attended by nearly 1400 students. Mechanics and others, who find it necessary to have some knowledge of the principles of art in their daily work, have diligently attended the evening classes in drawing, including freehand, architectural and machine drawing.

—The center of interest in the East has shifted from the Bulgarian side of the peninsula to the frontiers of Greece and Servia. Bulgaria will still remain united, if the wish of the powers be regarded. Even in Turkey a contrary result is not expected now. Greece and Servia are both bent on an extension of territory, and if Servia fights, Greece will fight, too.

— Hell Gate, at the East River entrance of Long Island Sound, was cleared of reefs last Saturday by the blowing up of Flood Rock with nearly 300,000 pounds of dynamite. It was the greatest single charge of explosives ever used. There were four miles of galleries charged with dynamite. When the rock is taken away, ocean steamers will find twenty-six feet of water in its place.

—Although, under the Edmunds law, the children of plural marriages in Utah are legitimized, it is doubtful how far this fact binds their fathers to provide sustenance and education. The Mormon Church statistics give 12,000 polygamists in Utah, and at the rate the courts at Salt Lake City are working, the problem of providing for broken-up families will very soon assume importance.

—The stock market continues active, and prices have been well sustained. The bull movement is a strong and determined one, and it is considered to be warranted by the increased earnings of more than half the railroads in September, as well as in the fact that the trunk line difficulties are in the way of adjustment. There is an increased buying by investors and ontsiders, especially of bonds.

—Lord Randolph Churchill says, in the address he has issued to his constituency to secure their votes, that "the Tories (his own party) will oppose the dismemberment of the empire under the guise of national councils, the abolition of the House of Lords, and the disestablishment of the Church, the use of its endowment for purposes of secular education, the wholesale plunder of all who acquired property by inheritance or thrift, under the guise of graduating taxation. All means social ruin, and must be confided to Mr. Chamberlain if the people restore the Liberals to power."

☞ *The Bay State Monthly* for October is prefixed with a faithful steel portrait of Hon. W. W. Crapo, of New Bedford, which is followed by a biographical sketch. The other contributions are—The Authoritative Literature of the Civil War; Assessment Insurance; The Hero of Lake Erie; A Model Industrial City, with illustrations; The Last Portrait of Daniel Webster; Fort Shirley; the Mormon Church; Elizabeth, a romance, continued; Room at the Top; Two Days with the A. M. C.; The March of the Sixth Regiment; By the Sea; The Response of Marblehead in 1861; Equinoctial; and the Editorial Department. For sale by Cupples, Upham & Co.

Helpless Upon a Friendless Sea!

Who, in taking passage in a great trans-Atlantic steamer, does not feel a thrill of exultation over her magnificent power. Against her the Storm King may hurl his elemental forces, nor pierce her armor, nor stop her onward course.

But let me describe a scene when, one morning in mid-ocean, there came an alarm from the pilot house followed by a cry: "The ship's rudder is lost!" From the confident expression, consternation came to every face. The wheelman being helpless to direct her course, the vessel was at the mercy of wind and wave.

The captain had been negligent—the hangings of the rudder were allowed to wear weak, and suddenly it had dropped deep into the sea!

Strong in intellect, in physical vigor, in energy and in ambition, man confronts, undaunted, gigantic tasks and commands applause for his magnificent achievements. But, all unexpectedly, an alarm comes—the rudder of his constitution is gone. He has been careless of its preservation; mental strain, nervous excitement, irregular habits, over-work, have destroyed the action of his kidneys and liver. This would not occur were Warner's safe cure used to maintain vigor. And even now it may restore vitality to those organs and give back to the man that which will lead him to the haven of his ambition.—The Traveller.

—Mr. Gladstone writes thus: "I see that Bulgarian union, excellent in itself, may produce immessurable evils."

☞ On an obscure street, in an old building, without plate glass windows, on mahogany counters, *G. W. Simmons & Co.* do a business in Men's and Boys' Ready-made and Custom Clothing unequalled in this city. Intelligent, direction, shrewd and careful management, and personal superintendence, is the secret of it. Mr. Simmons is a worker who considers no detail too trivial for his attention.

—The aniline and dye-stuff importers in the United States are charged, in the American Journal of Fabrics, with wholesale corruption and bribery of buyers for manufacturing establishments. A system of bribery is alleged to have been fostered among the importers constituting the trade, which has rendered legitimate business impossible.

CONSUMPTION CURED.

An old physician, retired from practice, having had placed in his hand by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this receipt, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. Noyes. *149 Power's Block, Rochester, N. Y.* oct17-19t cow

—Taking the country through, with industry, trade, and finance considered in their relations to each other, the business improvement reported for the past two months is seen to be still making progress. The unerring financial conditions tell of a general improvement over the situation four months or a year ago.

THE FIRST KEEN TWINGE.

As the season advances, the pains and aches by which rheumatism makes itself known are experienced after every exposure. It is not claimed that Hood's Sarsaparilla is a specific for rheumatism—we doubt if there is, or can be, such a remedy. But the thousands benefited by Hood's Sarsaparilla warrant us in urging others who suffer from rheumatism to take it before the first keen twinge.

—There are four towns in Massachusetts still content to remain towns, which can boast a population of over 12,000. They are Pittsfield, Attleboro', North Adams, and Quincy. Four others have crossed the 10,000 line.

☞ Restore your lost appetite by using Dr. Warren's Bilious Bitters.

—The street railway disturbances in St. Louis, which at one time last week threatened even serious results, were suppressed more quickly than the similar ones in Chicago, and by the same methods. Violence was opposed by force, and, to settle all differences, a committee of citizens act as referees and advisers. The real complaint of the strikers is, that they get too little pay for sixteen hours' work a day.

☞ Ayer's Sarsaparilla is the quickest cure for all blood diseases. Its effects are felt immediately.

—The riflemen belonging to the Boston press had their annual competitions at Walnut Hill on Tuesday. A large appropriation was made for trophies, and the friends of members generously contributed prizes.

☞ Know Thyself, by reading the "Science of Life," the best medical work ever published, for young and old—sent free. apr11-yr

—The suburbs that form the enclosure for Boston are growing much faster than Boston itself. Some of them have gained at a rate that is really wonderful.

MARRIAGES.

In this city, Oct. 8, by Rev. O. P. Gifford, William T. Phinney and Harriet G. Tucker, both of Boston.

In Somerville, Oct. 8, by Rev. George W. Durell, Robert Sewell Munroe and Margaret Jane Shannon.

In Everett, Oct. 8, by Rev. R. P. Bush, Oliver S. Barrett of Malden and K. Josephine Clarke of Everett.

In Malden, Oct. 8, by Rev. E. S. Potter, Archibald Kilpatrick and Sarah J. Stockbridge, both of Malden.

In Winchester, Oct. 8, by Rev. Charles R. Seymour, Warren Johnson and Miss Ellen Crescent of Winchester.

In Beverly, Oct. 8, at the residence of Dea. George Roundy, by Rev. D. P. Morgan, assisted by Prof. E. R. Andrews, Mr. Samuel L. Roundy and Elizabeth W. Roundy, both of Beverly.

In Quincy, Ill., Oct. 7, by Rev. John Tunis, Frank C. Parker to Carrie, daughter of A. B. Kingsbury.

DEATHS.

In this city, 9th inst, Miss Elizabeth Alden, 81 yrs. 9 mos. 25 dys.

In Charlestown District, 10th inst., Rachel, wife of Benjamin Currier, 59 yrs.

In Dorchester, Oct. 11, of pneumonia, Garafelia Tucker, wife of Gustavus D. Parker, 40 yrs.

In Jamaica Plain, Oct. 11, Chas. Brewer, 81 yrs.

In Newton Highlands, 11th inst , Alice M. Keating.

In Newburyport, 8th inst., Mary, widow of John Whitten, 83 yrs.

In Worcester, Oct. 9, Ii. Frank Guild, 51 yrs.

In South Framingham, Oct. 8, Mrs. Lydia D. Jacobs, 68 yrs. 2 mos.

In Plymouth, Oct. 8, Charles H. Richardson, 54 yrs. 3 mos. 20 dys.

In Greenville, N. H., Oct. 13, Mrs. Sophronia K. Burd, 84 yrs. 2 mos. 3 dys.

In East Weymouth, Oct. 12, Joseph Sherman, 59 yrs. 6 mos.

In Newton Highlands, Oct. 9, Julia M., wife of Hiram Stearns, 85 yrs 9 mos.

In Hampden Corner, Me., 20th ult., Mrs. Catharine K. Nickerson, formerly of Boston, 79 yrs.

FLOUR AND GRAIN MARKET.

BOSTON FLOUR AND GRAIN.

The flour market is firm, but the demand is not particularly active. As the goods are wanted full figures are obtained, as millers are very strong in their views. Some fancy brands of spring patents are held at $6 10, and some St. Louis straight flours have been bought at less than $5 50. Corn is firm with holders views well maintained. Oats are steady, and in some locations No. 2 white cannot be bought at less than 36c.

Flour.—Fine at $2 90@3 15 ₱ bbl; superfine at $3 25@3 75; common extra at $4 00@4 25; medium extra at $4 25@4 50; choice extra at $4 50@4 75; Minnesota bakers' at $4 25@4 75; New York roller at $4 75@5 00; Michigan at $4 75@4 90; Michigan roller at $4 90@5 25; Ohio, Indiana, Southern Illinois and St. Louis patents at $5 50@5 90; Ohio, Indiana, Southern Illinois and St. Louis straights at $5 15@5 40; some fancy lots sold at $5 50; Ohio, Indiana, Southern Illinois and St. Louis clears at $4 85@5 10; Minnesota spring wheat bakers' at $5 75@5 90; fancy at $6 10; Wisconsin spring patents at $5 35@5 75. Cornmeal at $2 40 ₱ bbl. Rye flour at $3 25@3 4. Oatmeal at $4 35@4 50 ₱ bbl for fine and $4 75@5 25 or cut.

Corn.—High mixed at 54@54½c; steamer yellow at 53½@53¾c; No. 2 mixed at 54@55c; steamer mixed at 52½@53c; no grade nominal.

Oats.—Fancy, No. 1 white at 40@42c; No. 2 white at 35½@36c; No. 2 white at 34½@35c; mixed at 32½@33c, as to quality; No. 3 at 32@32½c.

Millfeed.—Bran at $15@15 50 ₱ ton in bulk for spring, with winter wheat at $16 00@16 50; in sacks $1 per ton more; fine feed and middlings in bulk

A TOILET LUXURY.

Ayer's Hair Vigor is the most cleanly of all preparations for toilet use. It is a delightful dressing for the hair, arrests the tendency to baldness, is agreeably perfumed, and is an effective remedy for all diseases of the hair or scalp. Mrs. D. N. Parks, Clio, Mich., writes: "One bottle of Ayer's Hair Vigor has entirely restored my hair to its natural color, and given it a beautiful, soft, silky appearance. I am fifty-seven years of age, and was quite gray. By the use of that one bottle of Ayer's Hair Vigor, the original color was perfectly restored, and I now have as fine a head of hair as when I was sixteen." Bessie H. Bedloe, Burlington, Vt., was troubled with a disease of the scalp, which caused her hair to become harsh and dry, and to fall out so freely that she scarcely dared to comb it. Ayer's Hair Vigor restored the scalp to a healthy condition, cleansed her head of dandruff, and made her hair beautifully thick and glossy. This preparation is approved and recommended by physicians.

CURES SCALP DISEASE.

Ayer's Hair Vigor imparts a healthy vitality to the scalp, and restores it to its normal condition. The son of James T. Carter, Covington, Va., suffered from scald head. He was cured by Ayer's Hair Vigor, and had, after using it, a fine growth of hair than ever. Dr. Horatio Nelson, Great Bend, Ohio, finds Ayer's Hair Vigor an excellent remedy for humors of the scalp.

FRESH GROWTH OF HAIR.

Ayer's Hair Vigor prevents the hair from falling out, or, if already fallen, will cause a new growth. E. H. Kilpatrick, Augusta, Ky., writes: "Ayer's Hair Vigor restores vitality to diseased hair. I have used it with success." W. W. Green, Metamora, Ind., writes: "I was entirely bald. One bottle of Ayer's Hair Vigor produced a fine growth of hair, which now covers my head."

AYER'S Hair Vigor

Restores Vitality.

When the hair begins to fade, grows gray, becomes weak, thin, brittle, and harsh, the vital forces of the organs, on which it depends, may be reëstablished by the use of Ayer's Hair Vigor. It will cause a new growth, presenting the luxuriance and color of youth. Every woman who has arrived at the middle age, and who wishes to retain the original beauty of her hair, should use this incomparable remedy. Mrs. O. O. Prescott, 18 Elm st., Charlestown, Mass., writes: "Two years ago about two-thirds of my hair came off. It thinned rapidly, and I was fast growing bald. On using Ayer's Hair Vigor, the falling stopped, a new growth commenced, and in about a month my head was completely covered with short hair. My hair has continued to grow, and is now as thick as before it fell." W. W. Wilkins, Windsor, Ill., says that erysipelas left his head bare as bald as an infant's. The use of less than a bottle of Ayer's Hair Vigor produced a fine growth of new hair, of the original color.

PREPARED BY

Dr. J. C. Ayer & Co., (Analytical Chemists), Lowell, Mass.

For sale by all Druggists.

SPORTSMEN LOOK! $30 FOR $13 A GENUINE BARGAIN.

Bristol Repeating Breech-loading Shot Gun

SMITH'S CAN BE RELOADED.

CENTRE FIRE CARTRIDGES. SHELLS CAN BE RELOADED.

This question has long been asked. Why cannot a *Repeating Shot Gun* be made on a similar principle to the Winchester and other Repeating Rifles? After years of experimenting we have solved this difficult problem, and is now offer, as a result of this great achievement, the *Bristol Repeating Shot Breech-loading Shot Gun*, pronounced by all sportsmen who have tested it to be far excellence the greatest gun ever offered. Shooting 7 Shot Cartridges, which it will do as rapidly as the hammers can be worked, it is unsurpassed by any gun made in this country, yet made in the simplest manner, and is not liable to get out of order. It is the strongest gun in existence, and will stand a strain that would destroy any other gun. It is the *Lightest Weight Gun* made, weighing only 7 lbs. 8 oz. It is the *Handsomest Model Ejector*, which throws out the fired shell and reloads itself at the same time by the simple *Lever Movement*. It also has the Patent Hammer Safety Device, which renders it impossible to discharge it except by design. The *Locks, Mountings, and Steel Plates* are made of the very best steel, and the *Barrels* are of the *Finest Blued Steel* and guaranteed *U. S. Government Proof*. Stock is of selected Walnut, oiled and polished. All parts are accurately and substantially connected it will never get out of order. The action is so simple even a boy can comprehend and handle it with perfect safety. We condemn gun buyers against irresponsible firms who are exclusive advertise and offer bogus, altered, and key guns, and in many instances have no stock on hand. **The barrels of which are in two pieces welded together. We also take our fire cartridges, which cost $3.65 per 100, and can be used but once. After being fired the shell can be reloaded five times. The Bristol taken a centre fire shell and can be reloaded any number of times. Any gun house in America can supply the Shells.**

1 cartridge belt and set of reloading tools with full printed instructions, **1 box of Primers**, and **1 box of Powder**, sufficient to load 100 shells, **1 box of Shot**, **1 box of Wads**, **1 guarantee**, **1 box of Caps**, **1 box of Shells**, **1 box of Cartridges**, **1 box of Shells**, **1 box of Cartridges**, **1 box of Shells**, **1 box of Cartridges

The Poet's Corner.

THE BELLS OF THE SOUL.

BY MRS. C. A. K. POORE.

Within each curtained heart a bell
With golden voice aloft is hung;
'Tis said its tones more richly swell
In hearts that are no longer young.

They gently mark the flight of years
That pass on joyous pinions by;
On youthful hearts and careless ears
Their echoes all unheeded die.

But borne along Time's onward roll,
We catch a muffled minor strain,
Fill through the chambers of the soul
More clearly rings the sad refrain.

The bells ring low when lovers part,
And have a hope to meet again;
But when love dies they rend the heart
With throbs of agonizing pain.

O'er ocean depths from distant lands
By gentlest touch these bells are rung,
And yet anon by shadowy hands
Across the grave the cords are swung.

For friends departing bear them bound
To other bells within their hearts;
And so their knells more loudly sound
As one by one our loved departs.

Oh, wondrous power! oh, magic bell!
That vibrates through each human soul;
Its secret workings none may tell—
No hand its mystery unroll.

Bat in the land of life and light,
Attuned in symphony sublime,
These mystic bells may all unite
In one grand harmony of chime.

—[Good Housekeeping.

Ladies' Department.

Written expressly for the Massachusetts Ploughman

ON THE NOR'WEST; FROZEN IN.

A WHALING YARN.

BY JOHN HUBBARD WOODBURY.

Author of "A Trip Southward," "Corporal Squib on the Farm," "David and I," "The Lost Indianman," How I Found It," etc., etc.

CHAPTER XV.

A Tramp on Shore—Caught in a Snowstorm.

The next day was given almost wholly to re-stowing the after part of the between decks, that room might be made in the steerage for the galley range, as well as for the crew, should it finally become too cold for us to remain in the forecastle. Everything aft was removed farther forward, leaving only a small open area immediately beneath the main-hatchway for convenience in coming at things.

The temperature was very low that day, but the wind seemed to have quite blown itself out, and we did not feel the cold as we had felt it at much higher temperature when the wind was blowing. While the sun was above the hills, the day, indeed, was a very pleasant one; and as we looked off towards those hills, more than one of us said we would like to take a tramp over them.

"Wait till to-morrow," said Mr. Luce, who overheard some of us talking about it, "and if there's no work going on, perhaps we'll take a run on shore."

Why Mr. Luce spoke in a doubtful way about the work was because the next day would be Sunday. We were never required to do unnecessary work on Sunday. As was necessary, of course, we should take whales if we could find them—and it was necessary to keep three men aloft on the lookout in order to find them. And, in fact, to suit man's convenience it becomes necessary to do a good many things. But on Sunday we never did any unnecessary work; though I cannot say that we kept the day holy, exactly. Whether it would be necessary for us to work on the morrow, we did not yet know. If not, then possibly we would be permitted to take a run on shore.

The day opened pleasantly, though it was not long till the sky was again covered with a light, snowy sort of haze. It was a calm, still morning, and the temperature was milder than it had been the day before. We did not get our first glimpse of the sun till after breakfast; though at sea, in that same latitude and with an unobstructed horizon, we ought to have seen him by six o'clock. But circling round so low down as he now did, it took him a long time to get above those southern hills.

After breakfast we were informed that we could have the day to ourselves, though there would really be no watch below. What we understood was that we could all stay below, ready at any time to come on deck.

Very soon after, however, Mr. Weeks came forward and said that if any of the starboard watch would like to go on shore they could do so, but they must be back by noon, when the same privilege would be extended to the men of the larboard watch.

"Ay, ay, sir! Ay, ay!" was answered back. "We'll be back by noon, sure; duff to-day, you know."

Feeling quite sure, I have no doubt, that the duff would bring us back, Mr. Weeks returned aft, and every one of us "starbolins" availed ourselves of the privilege to go shoreward. As we were leaving the ship, however, Mr. Briggs and Mr. Luce, with their boatsteerers, appeared, each armed with a musket, to accompany us. As Mr. Briggs headed the starboard watch on board the ship, it was very proper that he should head it on shore; but therein was a difficulty, as appeared even before setting out.

The trouble was Mr. Briggs wished to go in one direction, while Mr. Luce was set upon going in another—towards the quarter where we had seen those wolves disappear. This was towards the head of the bay, and as the shore in that direction was nearly a mile farther off than it was directly eastward, Mr. Briggs preferred to reach the hills by a nearer course. "Well, Luce," he said at length, "you go your way and I'll go mine—only don't get lost;" and so it was settled, Mr. Briggs starting on shore for the quarter he wished, followed by the greater part of the watch. Of course Tinkham went with Mr. Luce, and being of their family, as it were, Tanner and I went with them. So we four, with three more who were anxious "to see the wolves," went to southward, while Mr. Briggs led the balance of the watch eastward.

The snow-crust was so firm that our footsteps scarce made any impression on it, and we were not very long in reaching the head of the bay. Then, beginning to ascend, our progress was somewhat difficult, owing to the backsliding tendency which now seemed inherent in all of us.

We therefore followed the gentlest incline that offered, which was up a gully between two ridges, where it seemed we could hear, at times, the gurgling of water beneath our feet. We supposed a brook ran down through that gully, and that the brook had been covered with snow very soon after freezing over. "We might get water for the ship here," said Mr. Luce, "if it wasn't so far to carry it."

"Ay," said Tinkham, "if we only had some old farmer here with his sled and oxen we might fill up our empty water-casks, I've no doubt."

Fresh water was something we were likely to become short of before the winter would be gone, and in view of a probable deficiency we had already been put on an allowance of fresh water; but as a limited supply might at any time be obtained by melting snow, we were still allowed all we really needed. Why we were allowanced was because a good many of the foremast hands were inclined to use more than they needed.

There was little doubt that fresh water might be obtained in the gully, if it were not for the difficulty of getting the casks to and from it; but without stopping to give the matter much consideration we kept on, following the gurgling sounds, which were heard at brief intervals to the right and to the left, till we had gone at least two miles, where the gully terminated in a slight depression between two slopes, and the gurgling sounds had wholly ceased.

But we had seen no wolves nor any sign of wolves, or of anything else that had life. We ourselves appeared to be the only living things there, and how any animal could live there at that season of the year was more than we could understand. "I think it must be," said Mr. Luce, "that those fellows we saw the other night had got belated here, and have gone further south now. No doubt they prey around here on the coast in summer and go south in winter."

That was the only way we could account for their having been there, and coming to the conclusion that we should carry no wolf-skins back with us, we made our way to the highest land we could see, that we might take in as much of the country as possible at one view. Away to the nearly due west, rose a hill which seemed almost bare of snow, towards which we now laid our course; and after nearly an hour of hard walking we reached it, and were not a little surprised to find ourselves overlooking an open sea.

Less than two miles away was the dark blue ocean, as free from ice as it had been a month before. A belt of ice extended along the shore, however, within a mile from where we stood, and this icy margin was partly covered with snow. It was an ice-bound coast, surely; but if only the Amazon were out beyond that narrow belt, there seemed nothing whatever to prevent her soon coming beneath summer skies, where no ice is ever seen.

But we had left our good ship fast, and there she must remain, we felt sure, till the sun should have hid himself for months behind the snowy hills and come again. He was going now, slowly but surely—he could not wait for us; but after months of absence he would return, and then, perhaps, he would set us free. All we could do was to wait there through the long months that he would be gone.

"Well," said Mr. Luce, when we had stood for some time looking at the open water and talking things over, "we must lay our course back again, or we shall overrun our time. I don't believe the larbolins will go ashore to-day, though," he added, looking around at the signs of the weather, which gave sure indication of more snow.

The sun had become wholly obscured, a fleecy covering having overspread the whole sky. "It will snow before we get home," said Tinkham, "if we don't hurry," and so we all thought.

We therefore attempted to shorten our course by cutting across towards the ship, instead of going back to the head of the gully we had followed in coming from it. But we came to the conclusion, after a time, that in our case, too, the farthest way round would have been the nearest way home for us; for there were many ups and downs, and not being able, at length—owing in part to the bewildering snow-surface and our not seeing the sun—to tell east from west or north from south, we could not feel sure that we were really making any headway towards the ship.

At length, however, we came to a ridge from which we recognized the gully that we had followed outward, and with shouts of congratulation we hurried down towards it. And here again we were delayed, quite unexpectedly. There was a steep descent of some twenty or thirty yards to the bottom of the gully, and down this, in our sudden enthusiasm, we all slid together—to find ourselves at the bottom, which was lower down than we had expected.

Somehow the snow had formed an archway over that brook, just there, with room enough beneath it to hold us all, and our united weight, coming upon it so suddenly, had broken it through and let us down. For the moment we were all in a heap, half buried in snow; but having floundered to our feet and shaken off the thickest of it, we still saw daylight not far above us.

"Who'd have thought it?" sputtered Tinkham.

"Mighty fortunit!" said Tanner. "It looks 's though we'd find them wolves now. Take care yer guns; they might go off."

This precaution seemed needless, for the muskets were rammed to their muzzles with snow; which, of course, was why Tanner suggested it. There was little danger of their going off of their own accord. The important thing just then was to know how we were going to get out.

Our impetus had not only carried us through but under the snow-crust, which was at least four feet above our heads after we had regained our feet. The cavity into which we had fallen was some four or five feet in height, and over this there was a thickness of about six feet of snow. "I'm afraid we'll find Jordan a hard road to travel," said Tinkham, looking up at it.

"You haven't got a ladder about ye, most likely?" said Tanner.

"No, blast it! Got on my Sunday clothes. You'll find the ladder in my t'other trowsers' pocket."

"Wal, then, here's Eph, young an' sprightly, we'll give him a lift an' he'll run down an' get it. Anyhow, he might knock the snow down, with that gun of yourn."

As Tanner seemed about the only way we could get out, without waiting for a thaw, the suggestion was acted up; and getting upon Tanner's shoulders—the broadest shoulders there, Tinkham handed me his musket, after making sure it would not go off, and I began to beat down the snow.

The stiff crust made it rather slow work; but with little but snow came down, and was trampled solid by the others, till a hillock of considerable height was raised upon the ice that covered the brook.

Tanner had to let me down more than once, and we must have been nearly an hour in accomplishing what we did; but at length, by standing on the hillock we had formed, two could work at the same time; and then, with their muskets clubbed, both Mr. Luce and Tinkham went at the snow, and in no very long time we were all once more standing on the firm crust outside.

It was snowing, then, even outside, but Tinkham said it was not likely there would be any such fall of snow as we had down in that hole; and stopping only for a moment to look into the pit from which we had escaped, we hurried down the gully towards the bay, and in not over a quarter of an hour more reached the shore, and could see the ship, dimly looming through the storm.

It was one of those wild storms in which the snow seems to thunder by in the most awful way, coming softly and silently earthward through the motionless atmosphere. No breath of air seemed stirring then, and as we made another brief halt upon coming in sight of the ship, it seemed as if we could almost hear the falling flakes, as they settled softly down.

"I've seen it snow like this at home," said Tinkham. "There's no telling how much I used to enjoy such a snow as this."

"You'll get lots of enjoyment now," said Tanner, "pervidin' it snows all winter."

"Perhaps it won't snow all winter," replied Tinkham, with a sigh.

"Wal," returned Tanner, "enough 's as good 's a feast, and if it keeps on snowin' for a month, we oughter be satisfied. Some folks never is, though."

We were not long, now, in crossing the smooth surface of the bay to the ship. But it was past noon when we arrived there, and we found Mr. Briggs and a part of those who had gone with him already returned. But only a part had come back. DeWolf—Mr. Brigg's boatsteerer, and three other men, were still away. They had left the main party, when back among the hills, and had not since been seen. Not much anxiety was felt for them, however,—they would probably soon come in—and as there would, of course, be no duff going over for the larboard watch that day, no one was likely to suffer by their absence.

Our duff had had time to cool; but it was waiting, and with appetites well sharpened by our fatiguing tramp we sat down and ate it; and while eating, Tanner gave our interested shipmates an entertaining account of our adventure in the snow.

CHAPTER XVI.

A Weary Search for Missing Men.

It must have been about two o'clock when we finished our dinner, and even then those other men had not returned. And now, indeed, every one began to feel anxious on their account. Some accident had probably happened to them, or they had become lost in the blinding snow, the last seeming the most probable, especially to us who had ourselves been almost lost among the hills.

Hour after hour went by, and the absent men did not come. It remained calm, as when the snow began to fall, and the temperature was not much below the freezing point, but the snow fell thick and fast and was very blinding. To go in search of the men would be useless, and the searchers themselves would be liable to become lost. We were quite sure, now, that those four men were lost; and when night began to deepen the stormy gloom we feared that we should never more see them alive.

Night came, and with it a light wind from the eastward, which made the snow still more blinding. We could see nothing outside the ship, nor hear any sound save the sighing of the breeze through the rigging overhead. It was a long and anxious night. Of course, search would now be made as soon as it could be made safely, or be of any avail; but to search by night, in the thick, driving storm, was not to be thought of.

The mild temperature afforded some hope that the men would survive the storm, yet it seemed doubtful whether we would ever see them again alive. A sudden fall of temperature might chill them through, and leave only their stiffened bodies to reward our search, should even those be found, the experience we had already had with the weather made us fear the worst.

It ceased snowing before daylight came, and grew colder. The sky cleared as day dawned, and again the wind came round into the northwest; and as the missing men had not come, there was little hope, now, that they ever would. But a searching party was at once made ready—or rather two searching parties—one to be headed by the captain, and the other by Mr. Briggs, though both were to proceed together to the spot where the missing men had been lost sight of.

To prevent the searching parties themselves from becoming lost, as well as to direct the missing men, perchance, towards the ship, a lot of loose staves were split in twain, sharpened at one end, and arrow-shaped pointers nailed upon the opposite ends, to be set up in the snow, the arrows pointing towards the ship, as they went along. As many of these were made ready as both parties, some twenty men in all, could carry, and the work of preparation occupied us all from day-dawn until breakfast time.

But little time was given to breakfast, however, and when it was over the parties set out; the hardiest of the crew, those who seemed to possess the greatest powers of endurance, being the ones who were selected to assist in the search. Being one of the youngest of the crew, I was left behind.

Our first work after they were gone was to clear off the snow from the ship's decks, and again loosen and shake out the sails. This was a lighter snow than any that had yet fallen—all the others having been largely intermingled with sleet—and there being no crust, the wind, which soon began to increase, set it whirling about the ship, drifting it in to leeward, and filling the air out across the bay, at times, so that we could hardly see the shore.

In her anxiety, Mrs. Harding stood out upon the deck, wrapped in one of the captain's great pea-jackets, with her gaze fixed almost constantly on the shore at the point where the searching parties had disappeared. Little Tommy went often in and out, as uneasy as a child of six years can be, but showing by his inquiries that he, too, was anxious lest some of the men, and more especially his papa, would never come back.

It was a clear and sunny, but cold, bleak day. Having shaken out the sails, we rolled them up again at once, the snow being so dry that there was scarce any moisture in them, and then we did nothing but watch for the return of those who had gone away. It did not seem as if they could go very far, in that drifting snow, and as for those of whom they had gone in search, we said to each other that it was not likely we would ever see anything more of them. We all thought, now, that they had been frozen and that their stiffened bodies were buried in the drifted snow.

We had been doing nothing for at least two hours, when, down through the ravine up which the searching parties had gone, a solitary form, dimly seen through the whirling snow, came staggering towards us. Mrs. Harding was the first to see it, and her cry instantly drew all eyes towards it. There was only one, and that one seemed to stagger in very weariness as he came slowly forward.

But he had not reached the shore when another appeared, and we saw the first turn back and seemed to call to him. And even as he did so, still another came in sight, closely followed by a fourth, all staggering wearily down towards the shore. Holding their weary way they all came down upon the smooth, wind-swept bay, where, the light snow being now of no great depth, they stood for a moment and looked towards us, then started forward with a somewhat quickened pace, as if eager to reach the ship.

Mr. Weeks, who had brought the glass to bear upon them, now said the foremost man was DeWolf, and the others the missing men who had gone with him. At this we raised a shout which the wind bore down to them, and which brought back an answering wave of their hands. It seemed as if that friendly shout really gave them new strength, for now they came forward more swiftly than before, and it was not very long till we had the satisfaction of welcoming back those whom we had thought never to see again alive.

But we had to help them up the ship's side, and no sooner were they on deck than all their strength was gone and down they sank. We carried them bodily into the cabin; where that dear woman, Mrs. Harding, helped to minister to their necessities with her own gentle hands. They were all more or less delirious for a time, but we understood that they had seen neither of the searching parties.

It subsequently appeared that in their blind wanderings they had come to one of those arrows, and, being directed by it, had fallen upon another, and then another, and thus had been guided to the ship. They had wandered about in the blinding storm all night, not daring to lie down lest they should never rise again, and still hoping that at length some fortunate turn would bring them near the ship by day. Morning had found them so exhausted that they were obliged to sit down in the snow to rest. But it was at the risk of life to sit in the chilling wind and drifting snow very long, and with a great effort they had roused themselves and began the struggle anew.

DeWolf said that he had been in a state of semi-consciousness all the morning, and that it now seemed to him more by instinct than reason that he had been led to make any further exertion to save his life. Had it not been that he thought himself accountable for the lives of the others, he said he should have accounted his own life as not worth another struggle, and have lain down and died. But even then, he said, he had no effect to arouse and somewhat revive him; it showed that search was being made for them, and that help would be found the way it pointed; and in the hope of reaching that help they had struggled on, and were saved.

Now that they were on board and under Mrs. Harding's kind treatment, they rapidly recovered from their exhaustion, and by noon they were able to come on deck. They had not, of course, fully recovered their normal condition, but it seemed better to them to be up in the sunlight, looking out for those who had gone to look for them. And good Mrs. Harding, too—she seemed almost as anxious, now, on her husband's account as she had before seemed for them.

It was noon, but no one thought of dinner. We were too anxious for the return of our shipmates, who were struggling through the snow-drifts in search of those whom they still believed lost, to think of eating. How long they would continue their vain search we could not tell, and we waited in great anxiety for them to reappear.

It must have been some two hours past noon when the first of them came in sight. It was Mr. Briggs, the mate told us, who was leading the straggling and weary party homeward. Mrs. Harding saw it was not her husband, and the expression of her face at once betokened the alarm she felt.

Straggling after Mr. Briggs were ten men—those, probably, who had formed his own party—and all our watching failed to show us more. We must wait still longer for the captain and the men who had gone with him.

When Mr. Briggs reached the ship he said he had seen the captain for hours—not since he had first parted with him within an hour after leaving the ship. The captain and his party had then taken a southerly course, and Mr. Briggs had gone north-eastward. He was very much surprised to find the men for whom he had been so vainly searching, now on board, and apparently in better condition than his own jaded party.

And now our concern was wholly for the captain and the men who had gone with him. It was pitiful to see that poor woman, standing there in the chilling wind till the pale sun almost touched the southern hills, looking wistfully out through the swirling snow. Little Tommy, shivering and his teeth chattering, kept her company now and then, always asking as he ran out on deck and took her hand, "Isn't papa coming now?" We could not but think what a desolate place that would be for those two loving hearts should anything happen to prevent the captain's return.

We all had fears, he was gone so long. The sun had sunk out of sight, and he had not come. But at length, when night was drawing near, he appeared. He did not come from the eastward, but from the southward. We saw him and his weary men emerge from the narrow ravine up which we had gone the day before, and then we said to each other that they, too, had been lost.

They came with tired steps, but at length were all on board. Mrs. Harding had disappeared, and merely saying to Mr. Weeks that they had been lost, the captain took little Tommy by the hand and entered the cabin. Mr. Luce, who had been with him, then told us that they had taken such a jaunt as he hoped never to take again. They had been wading through snow ever since morning—through drifts, some of which he said were ten feet deep—and for awhile they had almost given up all hope of ever getting back to the ship.

Not finding the men of whom they were in search, they had kept on even after setting up their last arrow, and when at length they turned back, they could not find it. Mr. Luce thought it was in one direction, the captain in another, and going the captain's way they had become quite lost. Since then they had wandered about in a vain endeavor to reach the bay, until, at length, when it seemed as if they were scarce able to go further, they had come to the head of that gully, or ravine, which Mr. Luce recognized; and then following down, they had at length come in sight of the ship.

"I have had all the going ashore I want," said Mr. Luce in conclusion; and so we all said, except those who had not been on shore at all, and even they showed no desire to go on shore now. The four men who had been the cause of so much trouble were now very comfortable, and except for being reminded by the captain, somewhat emphatically, that they had better have kept with Mr. Briggs, they did not suffer more from their twenty-four hours' exposure.

It was past the supper hour when the captain arrived, and when we had had supper, the watch was set for the night. And then, for one night more, those whose turn it was to be on duty were allowed to sit, for a part of the time at least, in the house aft, around the glowing stove. The night was a very cold one—the coldest, I think, that we had yet had—and the fire felt very comfortable. The wind came from well to northward and was blowing quite a breeze. It was the kind of weather that makes ice very fast, and we had no doubt the next morning would find the ship more firmly held than she had been at any time yet.

[TO BE CONTINUED.]

Written expressly for the Massachusetts Ploughman.

FALL.

The sunset through the trees now tells of fall
content;
The orchard limbs to earth with ripened fruit
are bent;
On high the baskets hang, while underneath
are laid
Huge piles of red and gold; landmarks of light
and shade.

The grain no longer bends and tosses in the
breeze,
Erect like sentinels, then lost in billowy seas.
The Indian corn is heaped behind the old barn
door,
While squash and pumpkins fair are ranged
upon the floor.

The nights are clear and still, the dew comes
frozen down,
To ope the chesnut burr and show its heart so
brown;
And by the moonlight clear the brown corn-
stalks are seen,
Like Indian wigwams placed, the wood and
road between.

The woods no longer look like solid banks of
green,
For maple, ash and birch in brightest hues are
seen.
The squirrel gathers nuts to spread his pantry
floor,
And crack when skies are gray and wintry
winds may roar.

And over all there hangs a sky of deepest blue,
With little clouds like heads of angels peeping
through;
And looking up, we think of God who dwells
above,
And beautifies this earth with light and peace
and love.

X. L.

Written expressly for the Massachusetts Ploughman.

FARMER JENNINGS

—AND—

HIS GRANDCHILDREN.

Very beautiful and picturesque was the residence of farmer Jennings—situated in one of the most inaccessible portions of New England—because of the hills, mountains and valleys that enclosed his tillage land from the nearest village. He was one of nature's noblemen—ever satisfied with his condition, putting the best possible construction on every passing event, and counselling all to be wise, peaceful and happy. When the sun shone in the glory of his radiance upon his gardens and fields, or the rain fell in generous showers upon his thrifty farm, he was full of innate gratitude and satisfaction, or, if the picture was reversed, farmer Jennings was trustful and happy. His equanimity of life became a proverb. None seemed to understand the inner sources of his life.

Madam Jennings—dear, gentle woman—was no less a pattern of excellence. It was easy to read from the calm dignity of her face her true lines of character. They had no children, living, but held in their home and hearts two orphan children of their only son. Charlie and Susie Jennings were both children of rare promise, and while under the tuition of their grandparents both gave them very tender tokens of their trust and affection, yet manifesting great inequality in their natural dispositions and endowments. Susie was dove-like, and heeded every word of admonitory instruction which fell from her grandma's lips. Also, her grandpa was an object of the tenderest solicitude to her.

One day when orchard some one say: "He is a man of God." She weighed the words (as children often do) and began to doubt, if that were the case, how she could safely claim him as her own grandpa. At length she concluded he was one of Jacob's best children, and, as his father went up to heaven, she would see a ladder let down some day for him, and he would go up on it and she would go with him more. Her sighs and tears were only soothed by grandma's assurances of the contrary.

Charlie, the elder of the two, was an affectionate child—full of generous impulses, kind to all, and never forgot that kindness is due to all animals, domestic or otherwise. He was ambitious and full of adventures—often saying: "When I am a man I will do this or that thing," without considering or questioning possibilities or probabilities, having so much assurance of his future ability. He very often received careful suggestions and wise admonitions from his devoted grandfather, whose heart was full of tender hopes and wishes for his future. He feared coming down day, in the heat of his youthful enthusiasm, attempt something too formidable too adventurous, or, on the other hand, in want of patience to accomplish the design, or should forget to be diligent, and thus lose the reward. This judicious grandfather, for his benefit, illustrated the well-known fable of the turtle and hare in a race, in order to better establish the moral that slow industry and perseverance is better than haste.

Charlie promptly responded to all the hints so kindly given him, and never wearied of gentle reproofs. Grandfather Jennings was ever willing to measure the bounds of his son's waywardness by little daily evidences of out-of-door life, which was, in truth, the best of teaching, and by way of illustrating his lessons introduced the perplexed and trite old maxim: "The farthest way around is the nearest way across."

"Your present unripe judgment, my dear son, will some day mature and teach you never to wish for anything unduly what your reason and reflection does not approve. It ever takes longer to heal an error than to make it."

"Do you understand me, my son?"

"Yes, dear grandpa—you tell me when I am older I shall think more before I act, and shall not act rashly."

"Right, my son," said he.

After a few moments of reflection, Charlie appeared evidently moved with suppressed emotion. His eyes were tearful. At length he broke the spell, and said: "My dear, dear grandfather, every day you seem more like one you read about in the Bible. Tell me, are you the son of Jacob, and will you go up to heaven on that ladder he went up on? Oh, who will care for us then! Susie says she thinks so, and what's hall we do?"—sorrowing as if it were an established fact.

Farmer Jennings laughed immoderately, and said: "What an idea is that! You and Susie may quiet yourselves—you are both wrong. Jacob himself did not ascend, and, least of all, I could not. I am not worthy of the honor" (hardly able to suppress his mirth). Charlie raised his sobbing, but still half audibly affirmed—"We are afraid."

This conversation took place between teacher and pupils, beneath the spreading branches of an oak tree—a favorite and convenient place of rest during the heat of the day for the workmen. Time passed sooner than they expected, and presently they were reminded of dinner by the distant sound of the great dinner-bell. Farmer Jennings, taking a hand of each of the children, made haste over many stiles and footpaths toward the house, for they had strolled far away among trees and shrubbery, and had forgotten the hour. While taking the nearest way homeward across the field a small stream of hot water ran over the pathway, covered with a plank, made a safe way of fording, and farmer Jennings said: "My children, you can go round and over the bridge yonder, and then up the lane to the house, and I will cross here and meet you at the door."

"Oh, grandpa Jennings!" exclaimed Charlie, "do let us cross over with you, do—there is no danger."

"Well, well," he said, "if you wish to do so, so much you may." So Charlie crossed, and then Susie followed; but she stepped on the edge of the plank, and slipped off, dipping both feet in the water. A little frightened, but not injured, farmer Jennings bore her in his arms, in this wet condition, into the house. Dinner was delayed by this accident, but no harm ensued.

After dinner farmer Jennings thought it would be opportune to apply the "ancient maxim" for Charles' benefit; but as soon as he left the table and had quietly seated himself with Madam Jennings he said: "Do you remember, dear children, give me a rest—I thought it was in one direction, the captain in another, and going the captain's way they had become quite lost. Since then they had wandered about in a vain endeavor to reach the bay, until, at length, when it seemed as if they were scarce able to go further, they had come to the head of that gully, or ravine, which Mr. Luce recognized; and then following down, they had at length come in sight of the ship.

"I have had all the going ashore I want," said Mr. Luce in conclusion; and so we all said, except those who had not been on shore at all, and even they showed no desire to go on shore now. The four men who had been the cause of so much trouble were now very comfortable, and except for being reminded by the captain, somewhat emphatically, that they had better have kept with Mr. Briggs, they did not suffer more from their twenty-four hours' exposure.

It was past the supper hour when the captain arrived, and when we had had supper, the watch was set for the night. And then, for one night more, those whose turn it was to be on duty were allowed to sit, for a part of the time at least, in the house aft, around the glowing stove. The night was a very cold one—the coldest, I think, that we had yet had—and the fire felt very comfortable. The wind came from well to northward and was blowing quite a breeze. It was the kind of weather that makes ice very fast, and we had no doubt the next morning would find the ship more firmly held than she had been at any time yet.

[TO BE CONTINUED.]

Glad words, indeed! He ventured to listen at the door of the dear invalid's chamber and heard the first audible words she had spoken in many days, "My Charlie." He was comforted. Then he was seen kneeling before his grandfather, full of penitence and deep sorrow, receiving his loving forgiveness, and, while being folded in his paternal arms, he said: "Dear grandfather, now I understand the full meaning of the ancient axiom, 'The farthest way around is the nearest way across.'"

TRAINING A HUSBAND.

A HINT FOR WIVES.

So you want ter know how I came ter hev Caleb, when I knew jest heow he used Nancy, his first wite. Wall, I'll tell ye all about it.

You know Dan'l left me pretty poorly off. I hed two liittle children, an' what ter dew I didn't know. The mortgage was ter run out in about a year an' a half arter he died. I'd sent the children down to brother John's ter go to school. Brother John wanted me to give them ter him an' he'd do well by 'em, an' I was meditating on it, orful loth to dew it. But what else could I dew with 'em when the old farm was took away from me?

One day, when the time was near eout, I was a hoein' the beans side of the fence jinin' Caleb's confield. I tell yer, Hannah, I never felt bluer in all my born days. I'd allers lived an' worked on a farm, an' couldn't do no other kind of work; so what was to become of me I didn't know.

"Purty good hoein' for a green hand," sez somebody over the fence.

"Yes," sez I. "I've done enough of it since I was left alone. 'Practice makes perfect,' we used ter write in our copy-book when we were chil'en," an' I couldn't help heaving a sigh.

"Wall, Emmerline," sez he, "you'n I seem to be in the same fix. You need a man to do your hoeing and sich, an' I need a woman to see ter my house; an' if you're agreed we'll hitch horses and work in double harness. I can't find no hired help that'll do as Nancy did." (Thinks I to myself, an' you'll never find another 'twill, either.) "So what d'ye say, Emmerline?"

P'raps I didn't think o' nothing for the nex' few minutes. It all flashed over me in a secont, what an unfeelin' man he'd allers been. Poor Nancy had ter dew all the housework an' a good deal belonging ter him ter dew, an' he was stingier than an old miser, tew.

I knew he was a smart man ter work, was forehanded and was able to live in good deal better shape than he did, an' you know, Hannah, that poor Dan'l was just the oppersite. He was a norful clever man, was Dan'el, but kind o' shiftless an' easy, an' it allers worried me ter hev things goin' so slack. Sez I to myself, a body can't hev everything; there's allers some couts, an' a poor man's better'n none. So I speaks right up, and I sez:

"Caleb, we've been naybors for many a year. I know your failin's an' s'pose you know mine; an' so, if you say so, all right; p'r'aps we might do wuss."

Wall, ter make a long story short, we agreed to hev the bussness dun right off. Caleb said that it was stylish to go on a wedd'in' tower, now-a-days, and, as he wanted to go down to Bangor ter see about selling his wool, an' as Sarah Jane Curtis (who used to work for him) lived about half-way, an' we could stop there both ways and not cost us anything, he thought we'd better go. His niece, Rebecca Gilman, yer know, lives there, and we could make her a visit at the same time. Brother John lives there, tew, yer know, and I made up my mind that I'd jest bring home the child'en.

An' so I did; but Caleb he was orful sot agin it, but sed "of course they can come and make a visit;" an' I let him think so, 'cause I wasn't quite ready to have words with him yet.

We staid about a week, an' got home along in the afternoon all right. The next mornin' I woke up purty early, and I sez to myself: "Courage, Emmerline, now or never." I kep' still, for Caleb was still a snorin', but bime by he fetched an onarthly snort that wak't himself up, an' w'en he see as it was gettin' daylight, he nudged me an' sez he:

"Wake up, Emmerline, Emmerline; it's broad daylight; come, come, get up, we shan't hev any breakfast ter-day."

I was orful hard to wake, but after a while I managed ter, an' while I was a rubbin' my eyes, I sez, "Got a good fire, ain't ye, Caleb?"

"Fire!" said he. "No, I never build any fires. Nancy allers built the fires."

"Did she?" sez I, cool as a cucumber. "So did Daniel."

I turned over and went to sleep again—or at least he thought I did.

Wall, he wiggled, and turned, and twisted, and he didn't move ter get up fer about an hour, an' when the sun rose and shone inter the bed-room winder, he got up and built the fire. There wasn't no kindlings nor a stick of wood, an' he had to skirmish round lively and get some.

Arter the fire got to crackling in good shape I got up. I didn't hurry none, let me tell you. I was mos' dead lying abed so long, but sez I to myself:

"Ef I make the fires now, I'll probably hev to do it in cold weather, an' I won't do it for any man."

He was pretty sullen all day, but I didn't take notice of him, an' he got over it. The next day he was ter begin hayin', an' he had six men ter help him. I hed ter do all the work, an' take care of the milk and churnin', an' it was no fool of a job. Come time ter get dinner, an' there wasn't a slivet of wood cut. I sent Johnnie (he was then about seven years old) out in the field to tell Caleb I wanted him.

He came in, looking savage enough, and wanted to know what it was I wanted. Sez I:

"I want some wood ter burn."

"Wall," sez he, "there's a whole woodpile out there. Help yerself."

"An' not a stick split," sez I. "You will hev ter get a bigger stove ter burn that."

"Wall, it ain't such a hard job ter split it," sez he. "Nancy used tew, often, when I was sick."

"Did she?" sez I. "So did Daniel."

He got the wood, an' said, as he was going out, that he didn't want ter be called in out o' the mowing field again unless 'twas for victuals.

"All right," sez I.

The nex' day 'twas the same thing, not a stick split. Thinks I, "Old fellow, you ain't got Nancy here. I'll larn ye a little somethin' that p'raps ye don't know." So when it was dinner time I blows the horn, an' in comes all seven of these men an' sets down ter the table. Sich' stonished lookin' faces as they had as they viewed the grub. There was the biscut just dough, the pertaters, an' meat, an' vegetables, and everything was washed clean and put on raw. Not a thing was cooked.

Caleb looked blacke'n as a thunder cloud. "What does this mean?" sez he.

"It means what it means," sez I. "You said yest'day that you didn't want ter be called in from the mowin' field again unless it was for victuals, an' here they are."

"Nice shape, tew," sez he.

"Wall, I can't cook 'thought wood," sez I, dryly.

With that all seven of 'em started for the door, an' they never left that pile till it was ready for the stove. I never was bothered for wood again.

Charlie, knowing that a pathway existed running over the hill, between them and the village, besides the main road which lay around the hill, thought he would try that unfrequented path, for the novelty of the experiment and thereby gain time, said: "Come, my Susie, follow me."

Ascending was not easy, but the descent was found disagreeable to Susie. She looked down below, and said, "My Charlie—did grandpa know this deep way?" "Oh, don't be afraid, he will never know it! Follow me," he said.

They both proceeded a few feet downwards, Charlie leading, when the dear Susie missed her foothold and rolled down a fearful distance of many yards with increased force over stones, knots of rough shrubbery and brush, until caught and held by her clothes, about half-way down the descent. Stunned and dazed, she lay silent. Charlie was in agony! What could he do? To go down, he could not entertain for. She did not struggle or speak. Was she dead?

With a piercing scream of terror, he fled homeward, and raised the alarm. "Jim" and the family reached the place at the same time, and the faithful "Jim" was rapidly climbing upward to rescue the wounded Susie, guided by the drops of blood which had fallen on the stones.

Her head was cut with the stones and bled profusely. "She's alive!" he shouted, and tenderly wrapt the dear head in his handkerchief, released, and bore her down, and carefully conveyed her home, as no other could have done.

Physician was called to dress the wounds. A contusion in the head and several bruises of the body were the apparent amount of injury. She lay quiet and unconscious during the day and night.

It is not necessary to say what bleeding hearts and tearful eyes surrounded the couch of that moaning, feverish sleeper, during succeeding days and nights. They had watched with the deepest anxiety. But where was Charlie?

He, too, was a sufferer. Pale with weeping, and wishing to conceal himself, he even refused to see the suffering Susie until the doctor informed him that his sister would recove .

"I am very tired," said the lady at the head of the boarding-house table, Mor-day morning, to the good-natured minister who sat at the other end. "You should not be," said the parson; "you didn't preach a sermon yesterday." "No," said the lady, almost unconsciously, "but I listened to one." Then followed an oppressive silence, which gave the minister time to reflect that he had come out only second best.—Philadelphia Bulletin.

JAMES PYLE'S PEARLINE

THE BEST THING KNOWN FOR WASHING AND BLEACHING

IN HARD OR SOFT, HOT OR COLD WATER.

SAVES LABOR, TIME and SOAP AMAZINGLY, and gives universal satisfaction. No family, rich or poor should be without it.

Sold by all Grocers. BEWARE of imitations well designed to mislead. PEARLINE is the ONLY SAFE labor-saving compound, and always bears the above symbol, and name of JAMES PYLE, NEW YORK.

an'24 26teow

A COLORED MAN WHO DESERVED HELP.

The other day at dinner Prof. Henry, of Harvard College, was scanning a line of Virgil's hexameter to illustrate the meter to a rich business friend who had not read the classics.

"Longfellow's 'Evangeline,' and Virgil's epics," said the professor, "were written in the same hexameter. Now the first line of Virgil is scanned like this: Arma—vi-rum-que"—

"Why, I declare," he said hesitating, "I've forgotten the old familiar words."

"Shall I give them to you?" asked the waiter, politely.

"You?" asked the professor, in astonishment.

"Yes, sir," said the black man. They are: '*Arma virumque cano. Trojae qui primus ab oris.*'"

"Great guns!" exclaimed the business millionaire. "Where did you learn Latin?"

"At college, sir," said the waiter.

When the rich man found out all the poor negro's acquirements and ambition and poverty, he asked him much it cost him a year at Harvard University.

"It costs $130 a year, and I've got three years to go."

"Well, here," he said, "is $500—you can keep the change, and when you get through come and see Nathaniel Ruggles, in Dodge City, Kansas."—[Eli Perkins, in Boston Record.

HOW TO AVOID DOCTORS' BILLS.

[Aunt Chloe, London, England.]

Settling doctors' bills is not the pleasantest way of spending our money, and yet I know people, who, year after year, have to lay aside quite a large portion of their income for this purpose. Of course, in some cases, it is impossible to avoid a doctor's bill, and more than once, in our own experience, we have paid one with great thankfulness, feeling certain that had it not been for this timely aid there would have been more than one link missing